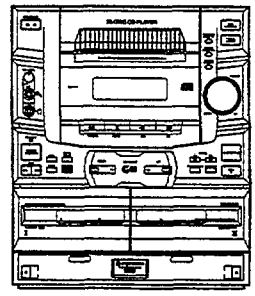
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
RRV1712

STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

XR-P670F

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	XR-P670F		
KUXJ	O	AC120V	———
KCXJ	O	AC120V	———
DD	O	AC110-127V/220-230V/240V	With the voltage selector
DDXJ	O	AC110-127V/220-230V/240V	With the voltage selector
DDXJ/NC	O	AC110-127V/220-230V/240V	With the voltage selector
DLXJ/NC	O	AC110-120V/220-230V/240V	With the voltage selector
YPWXJ	O	AC240V	———

- **For the circuit and mechanism descriptions, refer to the service manual RRV1430 for XR-P760F.**

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

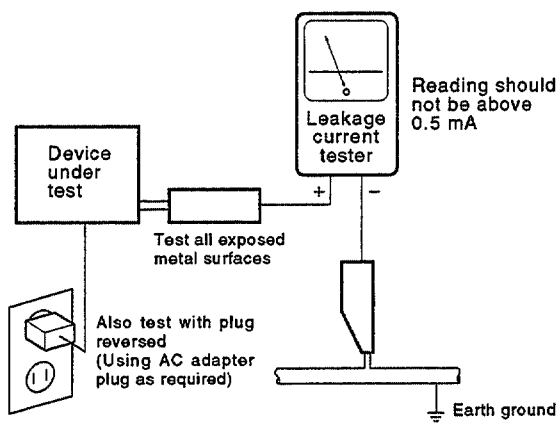
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Leakage current tester
Reading should not be above 0.5 mA
Device under test
+
−
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage , etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

VARO !
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVARSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARNING !
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

LASER
Kuva 1
Lasersateilyn varoitusmerkki

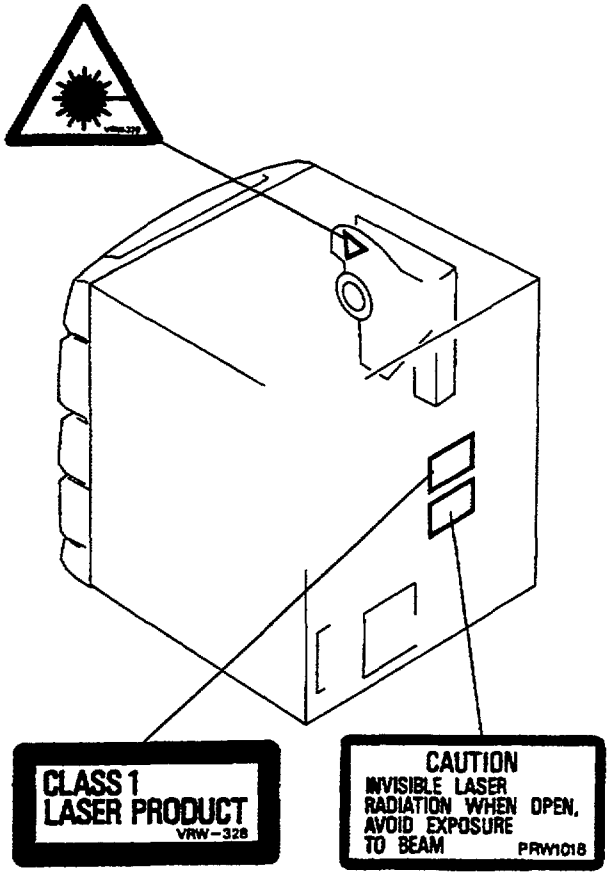
WARNING !
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780 – 785 nm

LASER
Picture 1
Warning sign for laser radiation

LABEL CHECK (For DLXJ/NC and YPWXJ types)



Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S651) is not on $\overline{\text{CLMP}}$ terminal side ($\overline{\text{CLMP}}$ signal is OFF or high level.) Thus, the interlock will no longer function if the switch (S651) is deliberately set to $\overline{\text{CLMP}}$ terminal side. (low level)
   The interlock also does not function in the test mode*.
   Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).

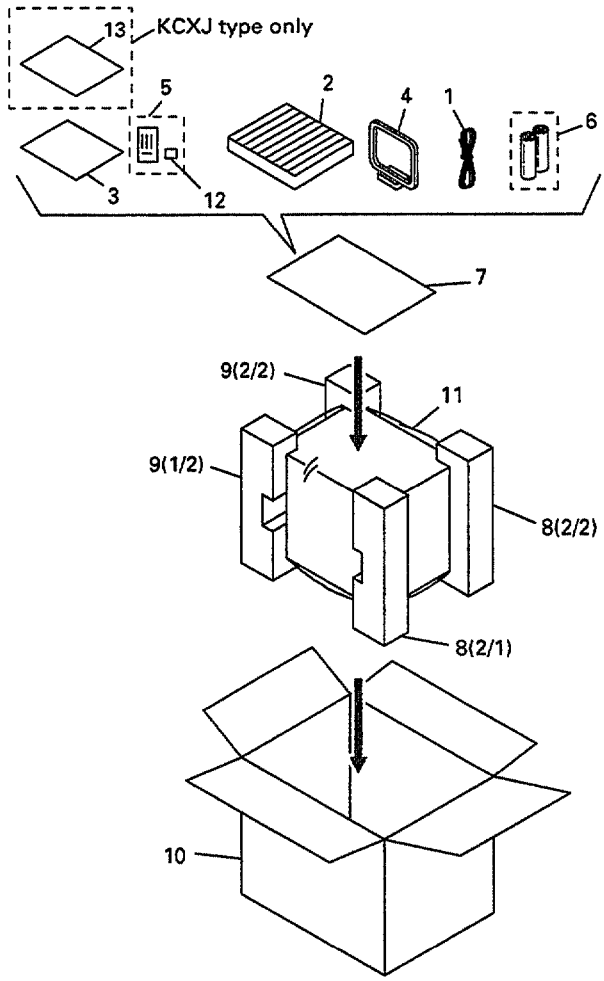
2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* *Refer to page 70.*

2. EXPLODED VIEWS AND PARTS LIST

NOTES: • *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
• *The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.*
• *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



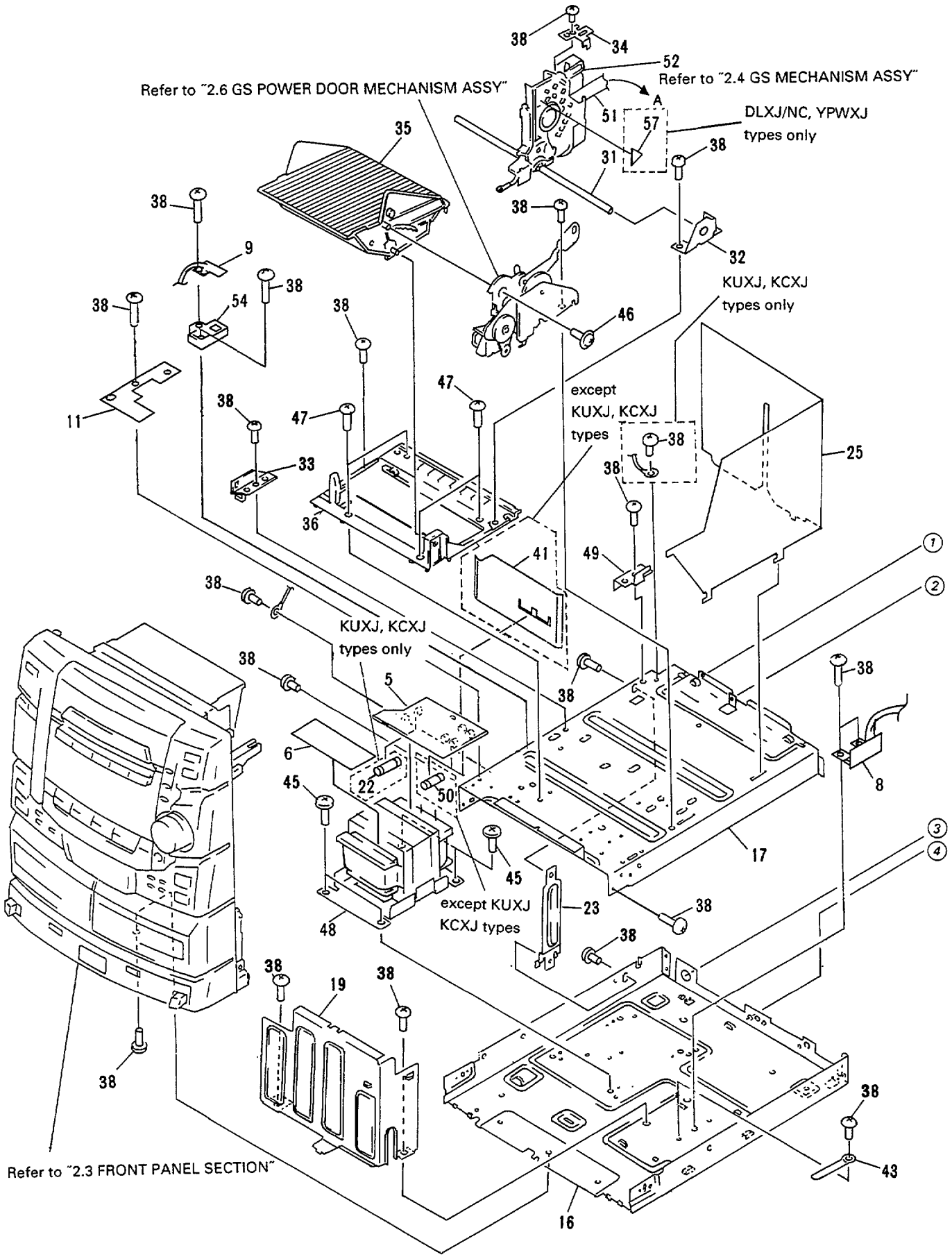
(1) PARTS LIST

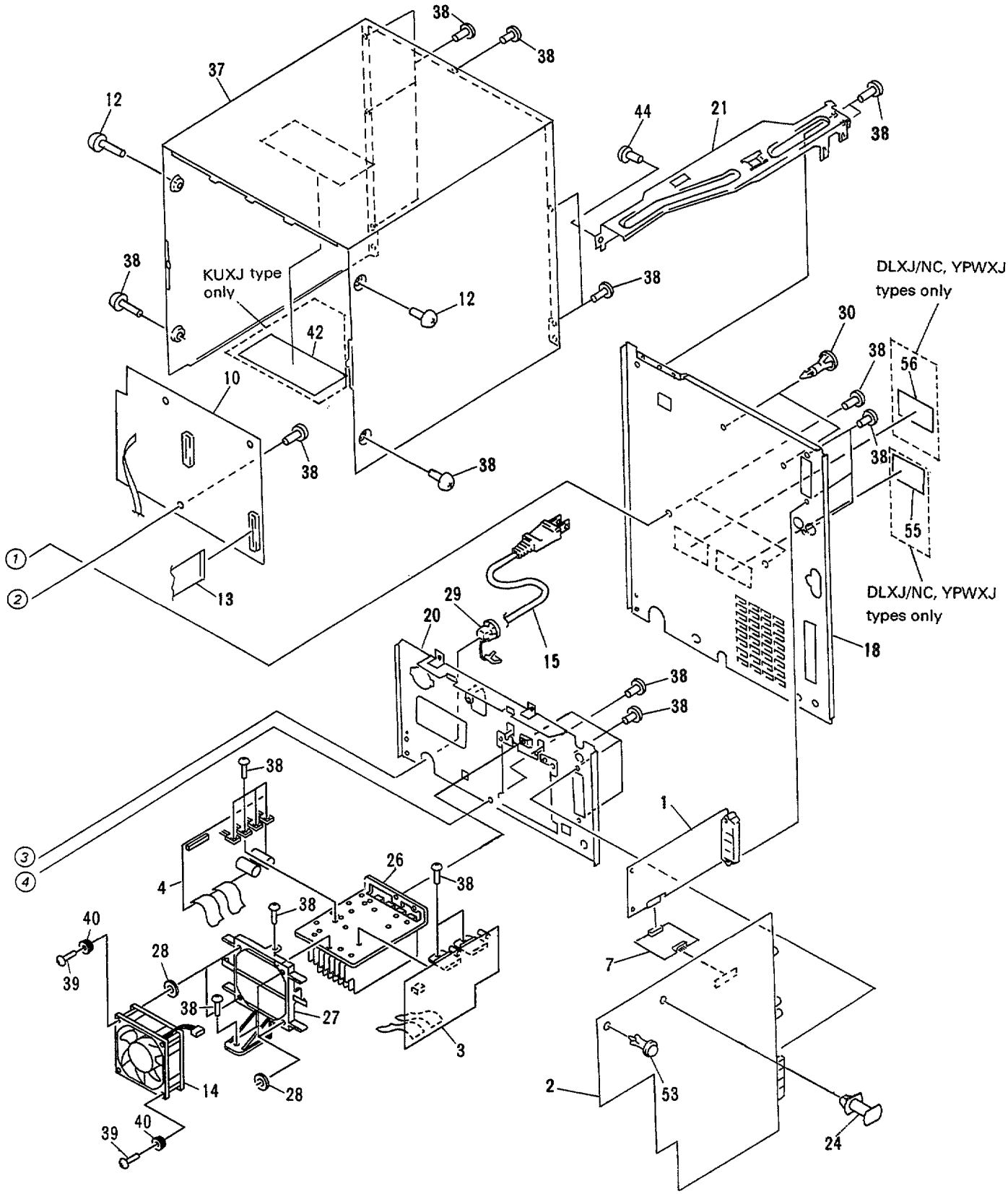
Mark	No.	Description	Parts No.
	1	FM Antenna	ADH7004
	2	CD Case Stand	See Contrast table (2)
	3	Operating Instructions (English)	See Contrast table (2)
	4	AM Loop Antenna	ATB7009
	5	Remote Control Unit (CU-XR036)	AXD7113
NSP	6	Battery (R6P, AA)	VEM-013
NSP	7	Polyethylene Bag	See Contrast table (2)
	8	Front Pad LR	AHA7142
	9	Rear Pad LR	AHA7143
	10	Packing Case	See Contrast table (2)
	11	Packing Sheet	AHG7003
	12	Battery Cover	AZA7123
	13	Operating Instructions (French)	See Contrast table (2)

(2) CONTRAST TABLE

Mark	No.	Srmbol & Description	Part No.							Remarks
			XR-P670F							
			KUXJ	KCXJ	DD	DDXJ	DDXJ/NC	DLXJ/NC	YPWXJ	
	2	CD Case Stand	AMR7072	AMR7072	AMR7066	AMR7072	AMR7072	AMR7072	AMR7072	
	3	Operating Instructions (English)	ARB7095	ARB7095	Not used	Not used	Not used	Not used	ARB7114	
	3	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	ARE7096	ARE7096	Not used	Not used	Not used	
	3	Operating Instructions (English/Spanish/ Portuguese)	Not used	Not used	Not used	Not used	ARE7102	Not used	Not used	
	3	Operating Instructions (English/Chinese)	Not used	Not used	Not used	Not used	Not used	ARE7103	Not used	
NSP	7	Polyethylene Bag	AHG7030	AHG7032	Z21-040	AHG7032	AHG7032	AHG7032	AHG7032	
	10	Packing Case	AHD7381	AHD7381	AHD7386	AHD7382	AHD7383	AHD7383	AHD7384	
	13	Operating Instructions (French)	Not used	ARC 7139	Not used	Not used	Not used	Not used	Not used	

2.2 EXTERIOR


Refer to "2.6 GS POWER DOOR MECHANISM ASSY"
Refer to "2.4 GS MECHANISM ASSY"
DLXJ/NC, YPWXJ types only
KUXJ, KCXJ types only
except KUXJ, KCXJ types
KUXJ, KCXJ types only
except KUXJ KCXJ types
Refer to "2.3 FRONT PANEL SECTION"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KUXJ type only
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DLXJ/NC, YPWXJ types only
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DLXJ/NC, YPWXJ types only
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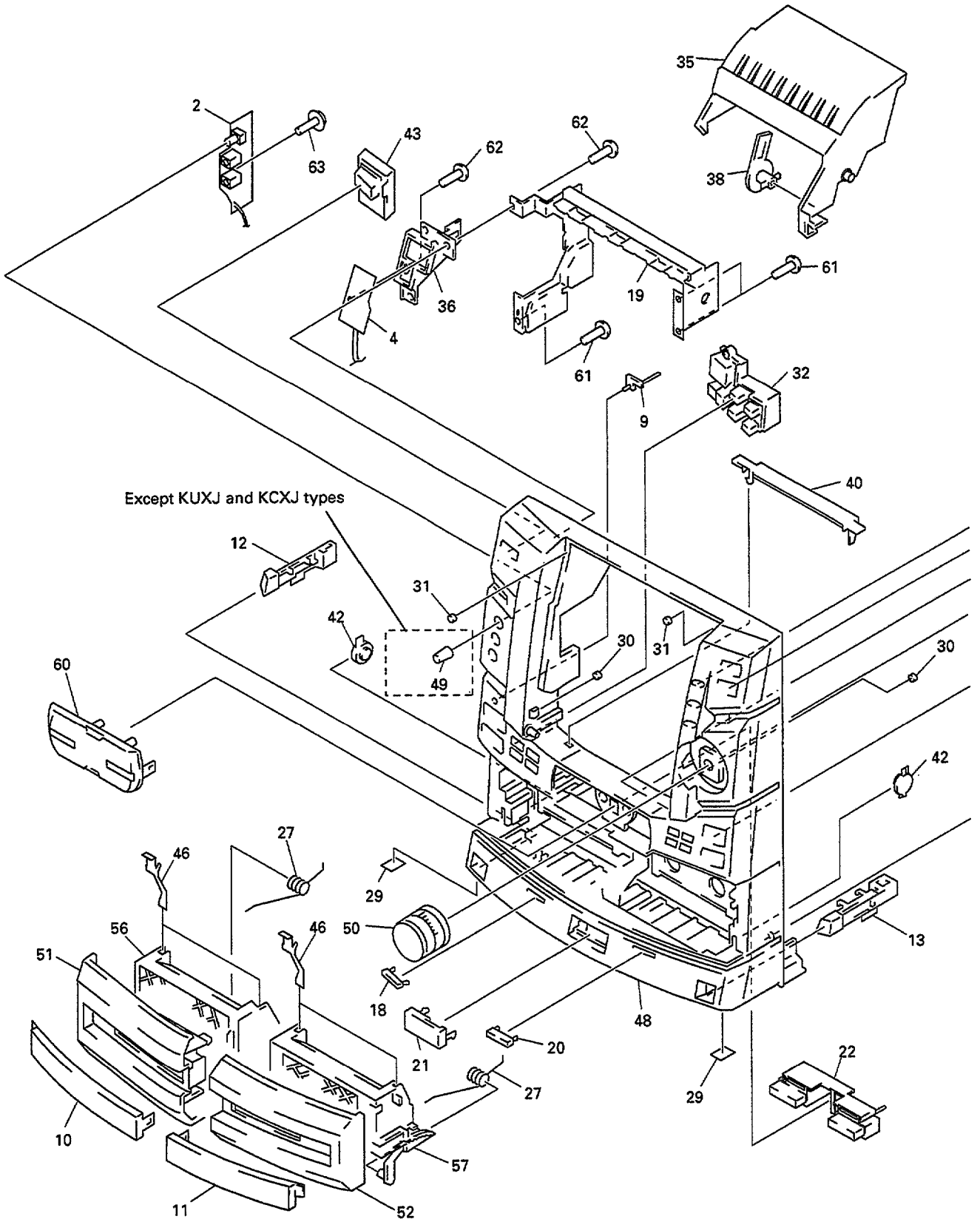
(1) PARTS LIST

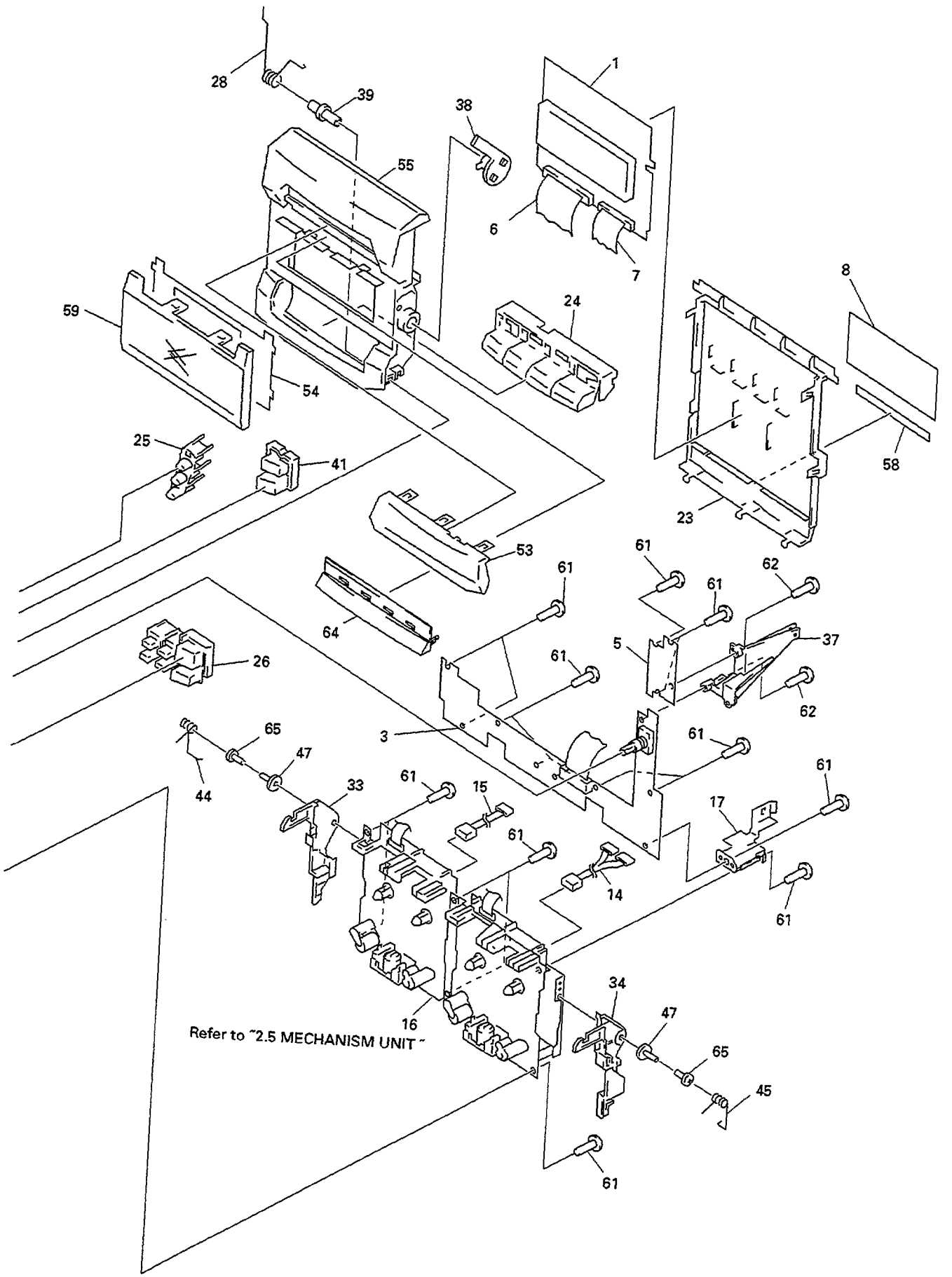
Mark	No.	Description	Parts No.
	1	FM/AM TUNER MODULE	See Contrast table (2)
	2	AF ASSY	See Contrast table (2)
	3	AMP ASSY	AWZ8647
	4	POWER SUPPLY ASSY	AWZ8649
	5	PRIMARY ASSY	See Contrast table (2)
	6	SECONDARY ASSY	See Contrast table (2)
NSP	7	TX CONNECT ASSY	AWZ8660
	8	REGULATOR ASSY	AWZ8683
NSP	9	HOME SW ASSY	AWZ8685
	10	GM-CD ASSY	See Contrast table (2)
NSP	11	PROTECTOR ASSY	AWZ8803
	12	Screw	VPZ30P080FZK
	13	35P F•F•C/30V	AAD7050
	14	DC Fan Motor	AXM7003
⚠	15	AC Power Cord	See Contrast table (2)
NSP	16	Chassis	See Contrast table (2)
	17	Sub Chassis	See Contrast table (2)
	18	Rear Panel	See Contrast table (2)
	19	Front Stay	AND7009
	20	Rear Stay	See Contrast table (2)
	21	Home Lock Stay	AND7022
⚠	22	Fuse (4A)	See Contrast table (2)
	23	Side Angle	ANG7091
NSP	24	PCB Spacer	See Contrast table (2)
	25	CD Cover	AAK7333
	26	Heat Sink	ANH7052
	27	Mold A	See Contrast table (2)
	28	Rubber Washer	AEB7080
	29	Cord Stopper	See Contrast table (2)
NSP	30	Locking Cade Spacer	VEC1596
	31	Guide Shaft S	ALA7008
	32	Shaft Holder	ANB7021
	33	Shaft Holder GS	ANB7094
	34	Assist Angle 2	ANB7065
	35	Disk Rack	ANW7069
	36	Rackbase SP	ANW7109
	37	Bonnet Case	ANE7142
	38	Screw	BBZ30P080FZK
	39	Screw	ABA7026
	40	Floating Rubber	AEB7060
	41	Voltage Cover	See Contrast table (2)
	42	65 Label	See Contrast table (2)
NSP	43	Binder	RNE1277
	44	Screw	BPZ30P120FZK
	45	Screw	BBZ40P080FZK
	46	Screw	IPZ30P080FMC
	47	Screw C	PBA1106
⚠	48	Power Transformer	See Contrast table (2)
	49	Lock Angle 2	ANG7117
⚠	50	Fuse (FU2, FU3 : T1.6A)	See Contrast table (2)
	51	22P F•F•C/30V	ADD7016
NSP	52	GS Mechanism Assy	AXA7047
	53	Push Rivet	AEC7069
	54	Home Switch Mold	AMR7168
	55	Caution Label	See Contrast table (2)
NSP	56	Label (F)	See Contrast table (2)
	57	Caution Label (G)	See Contrast table (2)

(2) CONTRAST TABLE

Mark	No.	Srmbol & Description	Part No.							Remarks
			XR-P670F							
			KUXJ	KCXJ	DD	DDXJ	DDXJ/NC	DLXJ/NC	YPWXJ	
	1	FM/AM TUNER MODULE	AXQ7061	AXQ7061	AXQ7051	AXQ7061	AXQ7061	AXQ7061	AXQ7061	
	2	AF ASSY	AWZ8643	AWZ8643	AWZ8644	AWZ8644	AWZ8644	AWZ8644	AWZ8644	
	5	PRIMARY ASSY	AWZ8651	AWZ8651	AWZ8652	AWZ8652	AWZ8652	AWZ8652	AWZ8653	
	6	SECONDARY ASSY	AWZ8656	AWZ8656	AWZ8657	AWZ8657	AWZ8657	AWZ8657	AWZ8657	
	10	GM-CD ASSY	AWZ8662	AWZ8662	AWZ8663	AWZ8663	AWZ8663	AWZ8664	AWZ8663	
⚠	15	AC Power Cord	PDG1057	PDG1057	PDG1056	ADG1157	ADG1157	PDG1058	ADG1159	
NSP	16	Chassis	ANA7034	ANA7034	ANA7053	ANA7034	ANA7034	ANA7034	ANA7034	
	17	Sub Chassis	ANA7057	ANA7057	Not used	ANA7057	ANA7057	ANA7057	ANA7057	
NSP	17	Sub Chassis	Not used	Not used	ANA7054	Not used	Not used	Not used	Not used	
	18	Rear Panel	ANC7514	ANC7544	ANC7521	ANC7515	ANC7516	ANC7517	ANC7518	
	20	Rear Stay	AND7010	AND7010	AND7007	AND7010	AND7010	AND7010	AND7010	
⚠	22	Fuse (FU1 : 4A)	REK1082	REK1082	Not used	Not used	Not used	Not used	Not used	
NSP	24	PCB Spacer	AEC7080	AEC7080	AEC1372	AEC7080	AEC7080	AEC7080	AEC7080	
	27	Mold A	AMR7005	AMR7005	AMR2594	AMR7005	AMR7005	AMR7005	AMR7005	
	29	Cord Stopper	CM-22C	CM-22C	CM-22B	CM-22B	CM-22B	CM-22B	CM-22B	
	41	Voltage Cover	Not used	Not used	AAK7387	AAK7387	AAK7387	AAK7387	Not used	
	42	65 Label	ORW1069	Not used	Not used	Not used	Not used	Not used	Not used	
⚠	48	Power Transformer (T1 : AC120V)	ATS7151	ATS7152	Not used	Not used	Not used	Not used	Not used	
⚠	48	Power Transformer (T1 : AC110-127V/220-240V)	Not used	Not used	ATS7153	ATS7153	ATS7153	ATS7153	Not used	
⚠	48	Power Transformer (T1 : AC240V)	Not used	Not used	Not used	Not used	Not used	Not used	ATS7154	
⚠	50	Fuse (FU2, FU3 : T1.6A/250V)	Not used	Not used	AEK1056	AEK1056	AEK1056	AEK1056	AEK1056	
	55	Caution Label	Not used	Not used	Not used	Not used	Not used	PRW1018	PRW1018	
NSP	56	Caution Label (F)	Not used	Not used	Not used	Not used	Not used	VRW-328	VRW-328	
	57	Caution Label (G)	Not used	Not used	Not used	Not used	Not used	VRW-329	VRW-329	

2.3 FRONT PANEL SECTION

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Refer to "2.5 MECHANISM UNIT"

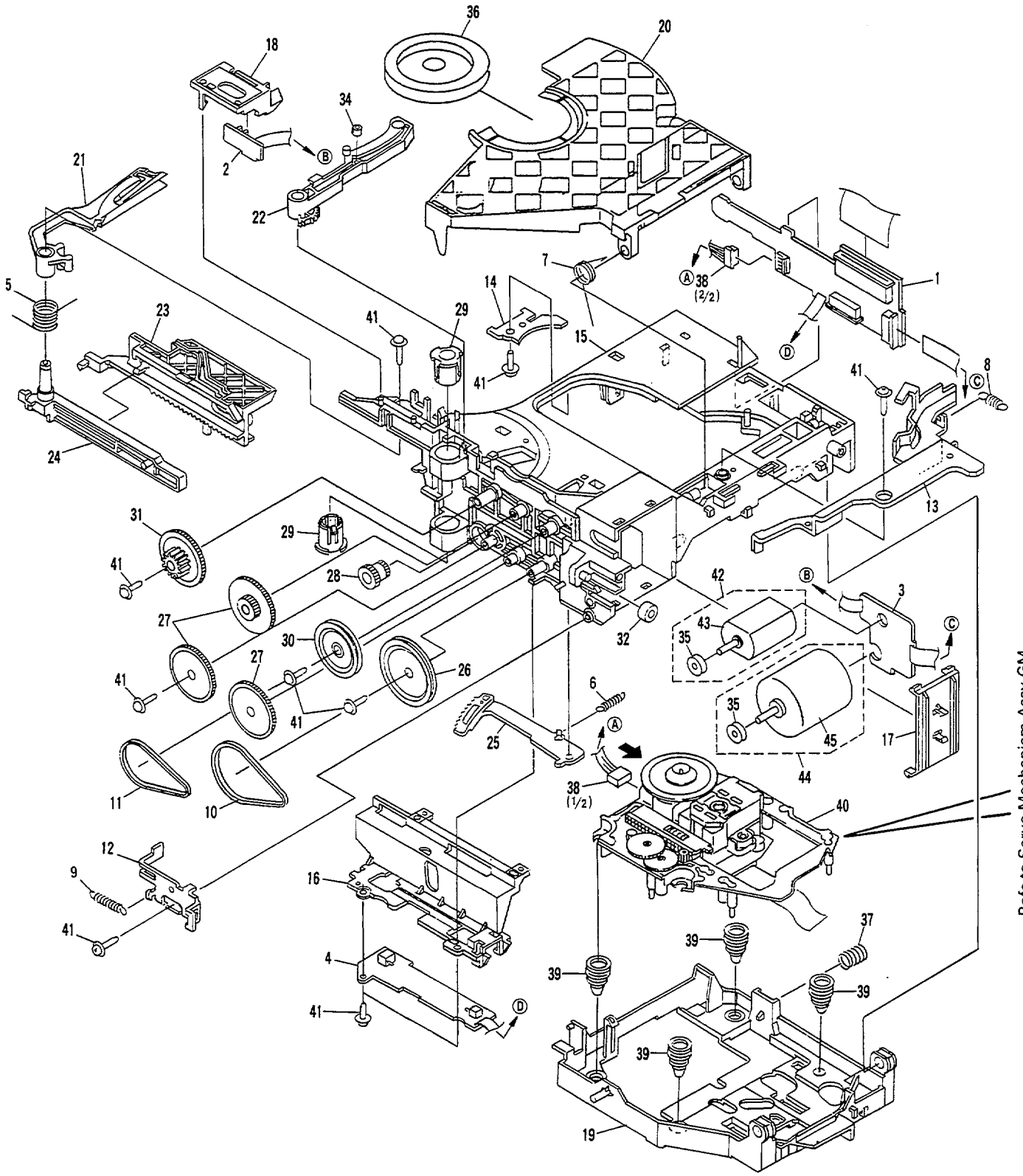
(1) PARTS LIST

Mark	No.	Description	Parts No.
	1	DISPLAY ASSY	See Contrast table (2)
	2	MIC & HP ASSY	See Contrast table (2)
	3	CENTER SW ASSY	AWZ8677
NSP	4	LEFT SW ASSY	AWZ8679
NSP	5	RIGHT SW ASSY	AWZ8681
	6	35P FFC 30V	ADD7049
	7	26P FFC 30V	ADD7048
	8	Caution Label	ARW7024
	9	Standby Lenz	AAK7310
	10	Door Window L	AAK7307
	11	Door Window R	AAK7308
	12	Eject Button L	AAD7367
	13	Eject Button R	AAD7368
	14	Connector Assy 5P	RKP1682
	15	Connector Assy 3P	RKP1683
	16	Meshanism Unit	RYM1248
	17	Earth Plate	ANG7110
	18	Azimuth Cover L	AZA7223
	19	Sub panel	ANG7113
	20	Azimuth Cover R	AZA7224
	21	Name Plate	AAK7351
	22	Disc Select Button	AAD7364
	23	CD Door Cover	See Contrast table (2)
	24	Function Button	AAD7363
	25	Timer Button	AAD7362
	26	Play Button	AAD7361
	27	Deck Door Spring	See Contrast table (2)
	28	CD Door Sping	ABH7143
	29	Rubber Sheet	AEB1111
	30	Rubber Sheet	AEB7054
	31	Cussion Rubber	AEB7068
	32	Power Button	AAD7360
	33	Eject Arm L	See Contrast table (2)
	34	Eject Arm R	See Contrast table (2)
	35	Barrier	AMR7135
	36	PCB Holder	AMR7140
	37	AF PCB Holder	AMR7141
	38	Link Holder	AMR7142
	39	Shaft Mold	AMR7143
	40	FFC Holder	AMR7159
	41	SFC Button	AAD7359
	42	Damper Assy	See Contrast table (2)
	43	Slot Eject Button	AAD7358
	44	Spring L	See Contrast table (2)
	45	Spring R	See Contrast table (2)
	46	Spring	RBK1004
	47	Corrar	RNK2135
	48	Front Panel	See Contrast table (2)
	49	Mic Volume Knob	See Contrast table (2)
	50	Vol Knob	AAB7117
	51	Cassette door Panel L	AZA7226
	52	Cassette door Panel R	AZA7227
	53	Edge Light Cover	AMR7166
	54	Amp Window Sheet	AAK7362
	55	CD Door	AAN7152
	56	Door Pocket L	AZA7253
	57	Door Pocket R	AZA7254
	58	Disc Rack Panel	AAK7251
	59	Amp Window	AAK7306
	60	Disc Select Panel	AZA7225
	61	Screw	BPZ30P080FMC
	62	Screw	BPZ30P120FZK
	63	Screw	ABA1005
	64	CD Door Plate	AAK7346
	65	Screw	BSZ20P120FMC

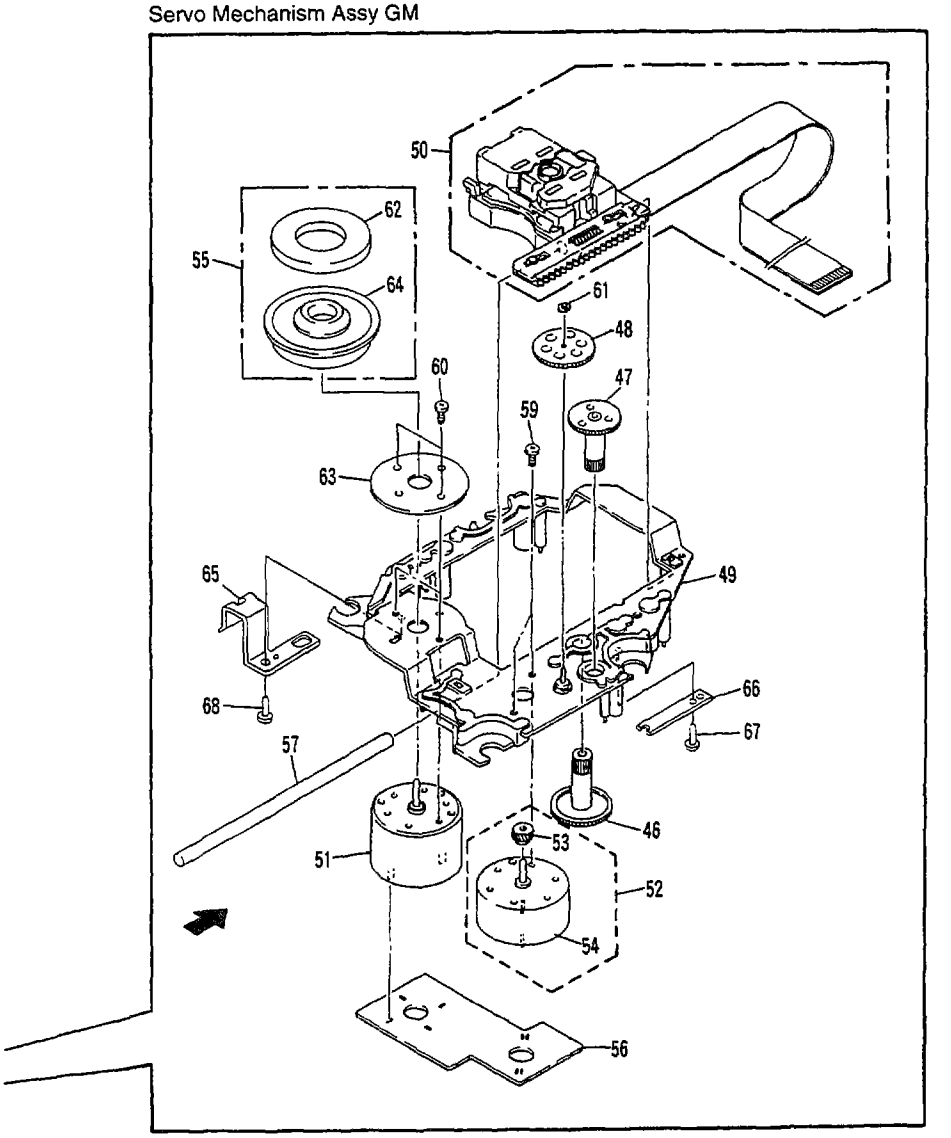
(2) CONTRAST TABLE

Mark	No.	Srmbol & Description	Part No.							Remarks
			XR-P670F							
			KUXJ	KCXJ	DD	DDXJ	DDXJ/NC	DLXJ/NC	YPWXJ	
	1	DISPLAY ASSY	AWZ8667	AWZ8667	AWZ8668	AWZ8668	AWZ8668	AWZ8669	AWZ8668	
	2	MIC & HP ASSY	AWZ8672	AWZ8672	AWZ8673	AWZ8673	AWZ8673	AWZ8674	AWZ8673	
	23	CD Door Cover	AAK7424	AAK7424	AAK7318	AAK7424	AAK7424	AAK7424	AAK7424	
	27	Deck Door Spring	ABH7149	ABH7149	ABH7134	ABH7149	ABH7149	ABH7149	ABH7149	
	33	Eject Arm L	AMR7074	AMR7074	AMR7020	AMR7074	AMR7074	AMR7074	AMR7074	
	34	Eject Arm R	AMR7075	AMR7075	AMR7021	AMR7075	AMR7075	AMR7075	AMR7075	
	42	Damper Assy	AXA7051	AXA7051	AXA7021	AXA7051	AXA7051	AXA7051	AXA7051	
	44	Spring L	ABH7102	ABH7102	RBH1411	ABH7102	ABH7102	ABH7102	ABH7102	
	45	Spring R	ABH7103	ABH7103	RBH1412	ABH7103	ABH7103	ABH7103	ABH7103	
	48	Front Panel	AZA7216	AZA7216	AZA7217	AZA7217	AZA7217	AZA7217	AZA7217	
	49	Mic Volume Krnob	Not used	Not used	AAB7119	AAB7119	AAB7119	AAB7119	AAB7119	

2.4 GS MECHANISM ASSY



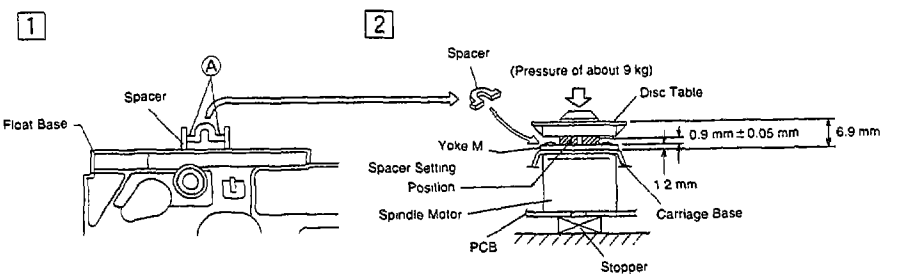
Servo Mechanism Assy GM



● How to install the disc table

1 Use nipper or other tool to cut the two sections marked Ⓐ figure 1.
Then remove the spacer.

2 While supporting the spindle motor shaft with the stopper, put spacer on top of the yoke M, and stick the disc table on top (takes about 9kg pressure). Take off the spacer.

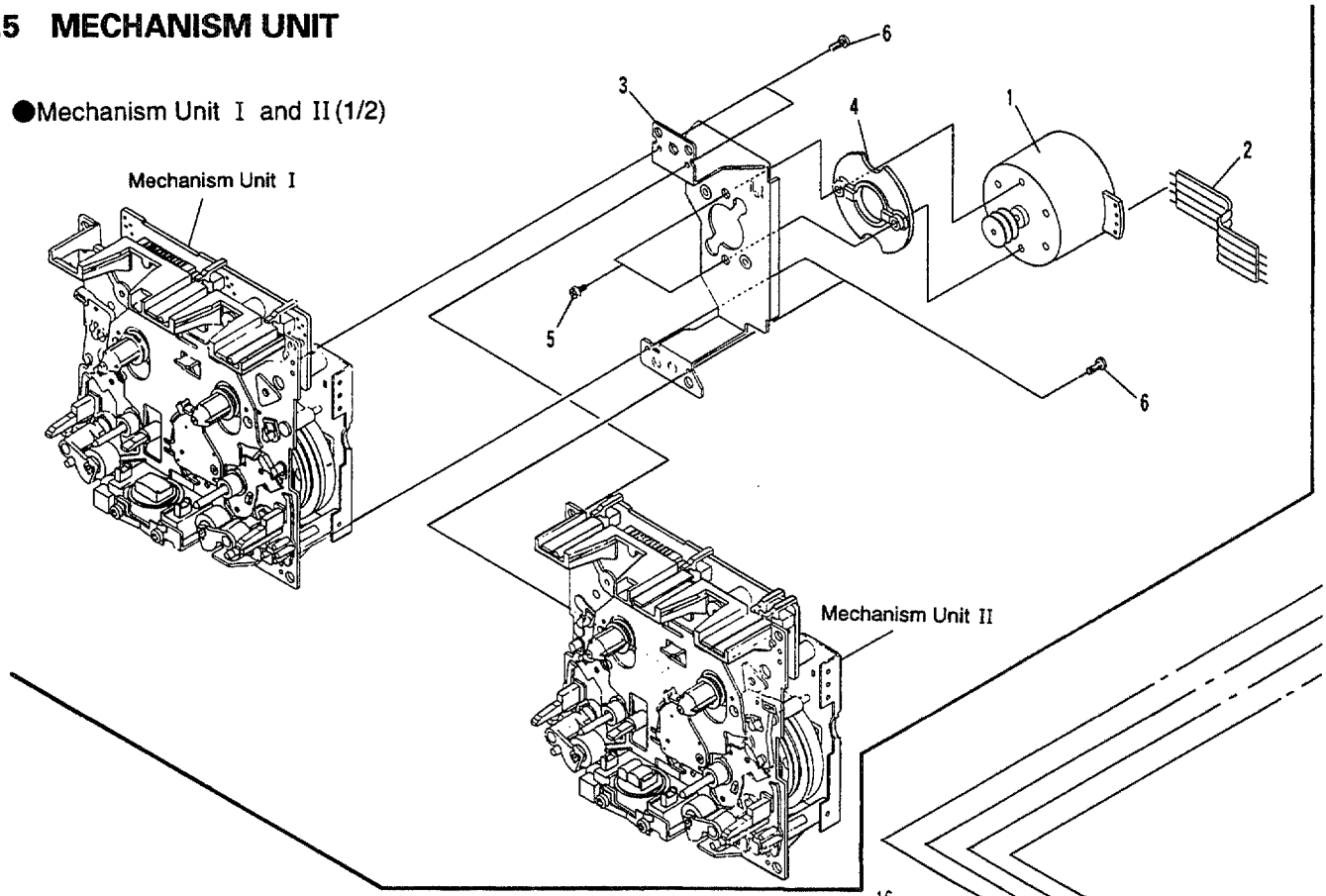


PARTS LIST

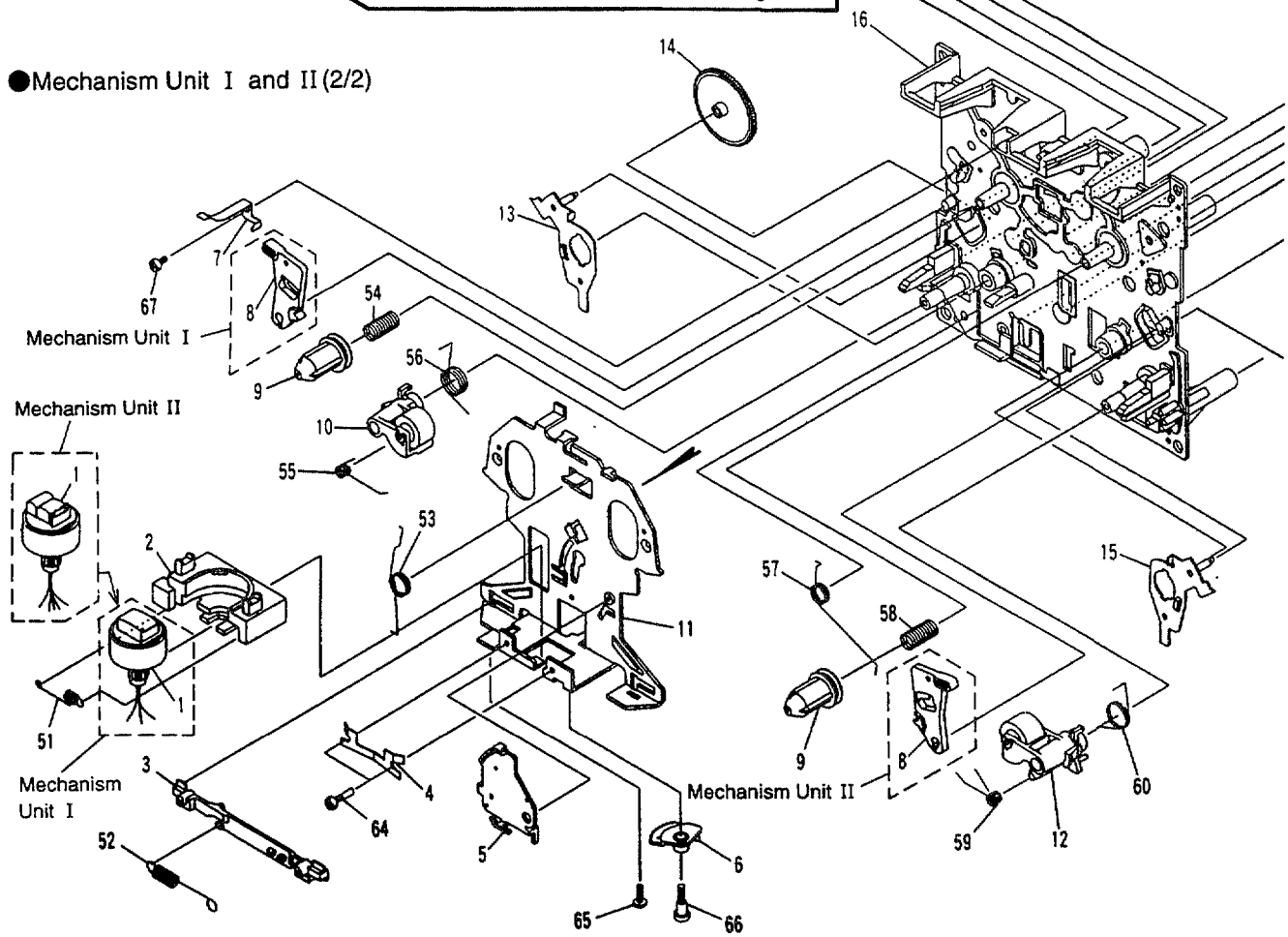
Mark	No.	Description	Parts No.
NSP	1	MECHA PCB ASSY	AWZ8802
NSP	2	SENSOR PCB ASSY	AWZ7836
NSP	3	MOTOR PCB ASSY	AWZ7837
NSP	4	SW PCB ASSY	AWZ7838
	5	ARM A SPRING 2	ABH7124
	6	GEAR PLATE SPRING	ABH7051
	7	CLAMP SPRING	ABH7107
	8	LOCK LEVER SPRING B	ABH7142
	9	LOCK ANGLE SPRING 2	ABH7123
	10	LOADING BELT	AEB7029
	11	BELT	AEB7030
NSP	12	LOCK ANGLE	ANB7027
NSP	13	LOCK LEVER	ANB7038
NSP	14	SERVO STOPPER S	ANB7047
	15	LOADING BASE	ANW7086
	16	CAM COVER	ANW7052
	17	MOTOR HOLDER	ANW7053
	18	SENSOR HOLDER	ANW7054
	19	FLOAT BASE	ANW7080
	20	CLAMPER HOLDER	ANW7084
	21	ARM (A)	ANW7057
	22	ARM (B)	ANW7058
	23	DRIVE PLATE	ANW7059
	24	ARM PLATE	ANW7060
	25	GEAR PLATE	ANW7111
	26	GEAR PULLEY (B)	ANW7062
	27	GEAR A	ANW7063
	28	DRIVE GEAR	ANW7064
	29	BEARING	ANW7065
	30	GEAR PULLEY A	ANW7066
	31	SELECT GEAR	ANW7067
	32	ROLLER	ANW7068
	33	.....	
	34	ROLLER B	ANW7075
	35	MOTOR PULLEY	PNW1634
	36	CLAMPER	PNW2692
	37	FLOAT SPRING	ABH7049
	38	CONNECTOR ASSY (4P)	ADE7006
	39	FLOAT RUBBER	AEB7028
NSP	40	SERVO MECHANISM ASSY GM	AXA7028
	41	SCREW	IPZ20P080FMC
	42	MOTOR ASSY (SELECT)	AEA7005
NSP	43	MOTOR	PXM1002
	44	MOTOR ASSY	AEA7006
	45	LOADING MOTOR	VXM1034
	46	GEAR 1	PNW2052
	47	GEAR 2	PNW2053
	48	GEAR 3	PNW2054
	49	CARRIAGE BASE	PNW2699
	50	PICKUP ASSY	AEA7004
	51	D.C. MOTOR ASSY (SPDL)	PEA1235
	52	CARRIAGE DC MOTOR ASSY	PEA1246
	53	PINION GEAR	PNW2055
NSP	54	CARRIAGE DC MOTOR/0.3W	PXM1027
	55	DISC TABLE ASSY	PEA1314
	56	MECHANISM BOARD ASSY	PWX1192
	57	GUIDE BAR	PLA1094
	58	.....	
	59	SCREW	JFZ17P025FZK
	60	SCREW	JFZ20P040FMC
	61	WASHER	WT12D032D025
	62	CLAMP MAGNET	PMF1014
	63	YOKE M	PNB1312
NSP	64	DISC TABLE	PNW2410
NSP	65	FLOAT ANGLE	ANB7020
	66	GEAR STOPPER	PNB1303
	67	SCREW	BPZ20P060FMC
	68	SCREW	BPZ26P100FMC
		FROIL (for service)	GYA1001
		HA NARL (for service)	GEM1016

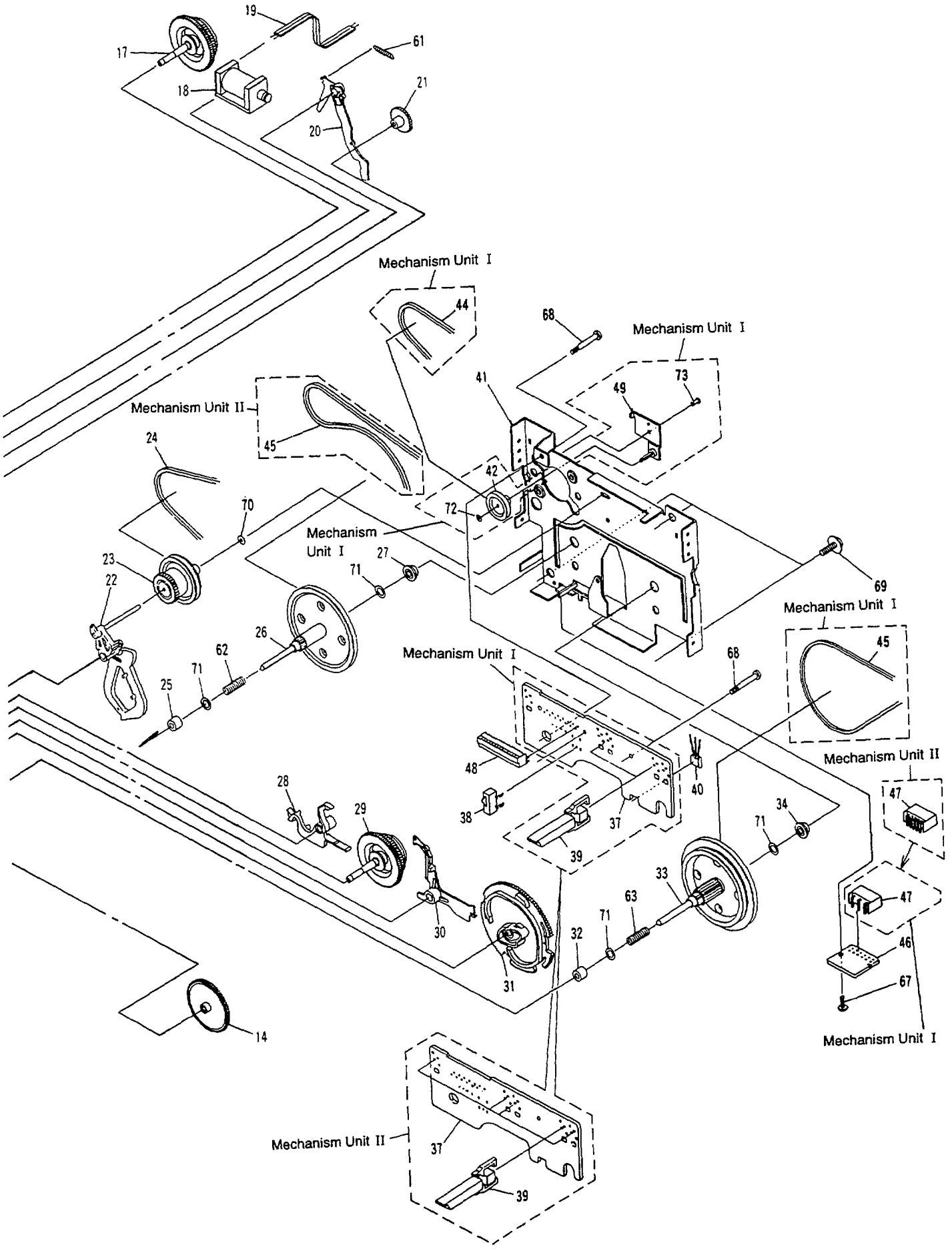
2.5 MECHANISM UNIT

●Mechanism Unit I and II (1/2)



●Mechanism Unit I and II (2/2)




19
17
61
18
21
20
Mechanism Unit I
44
68
Mechanism Unit I
41
73
49
Mechanism Unit II
45
24
42
72
70
Mechanism
Unit I
27
23
71
22
69
Mechanism Unit I
45
26
62
Mechanism Unit I
68
71
25
48
Mechanism Unit II
47
28
29
38
37
40
34
71
39
33
63
47
30
71
32
46
31
67
14
Mechanism Unit I
Mechanism Unit II
37
39

PARTS LIST

■ Mechanism unit I and II (1/2)

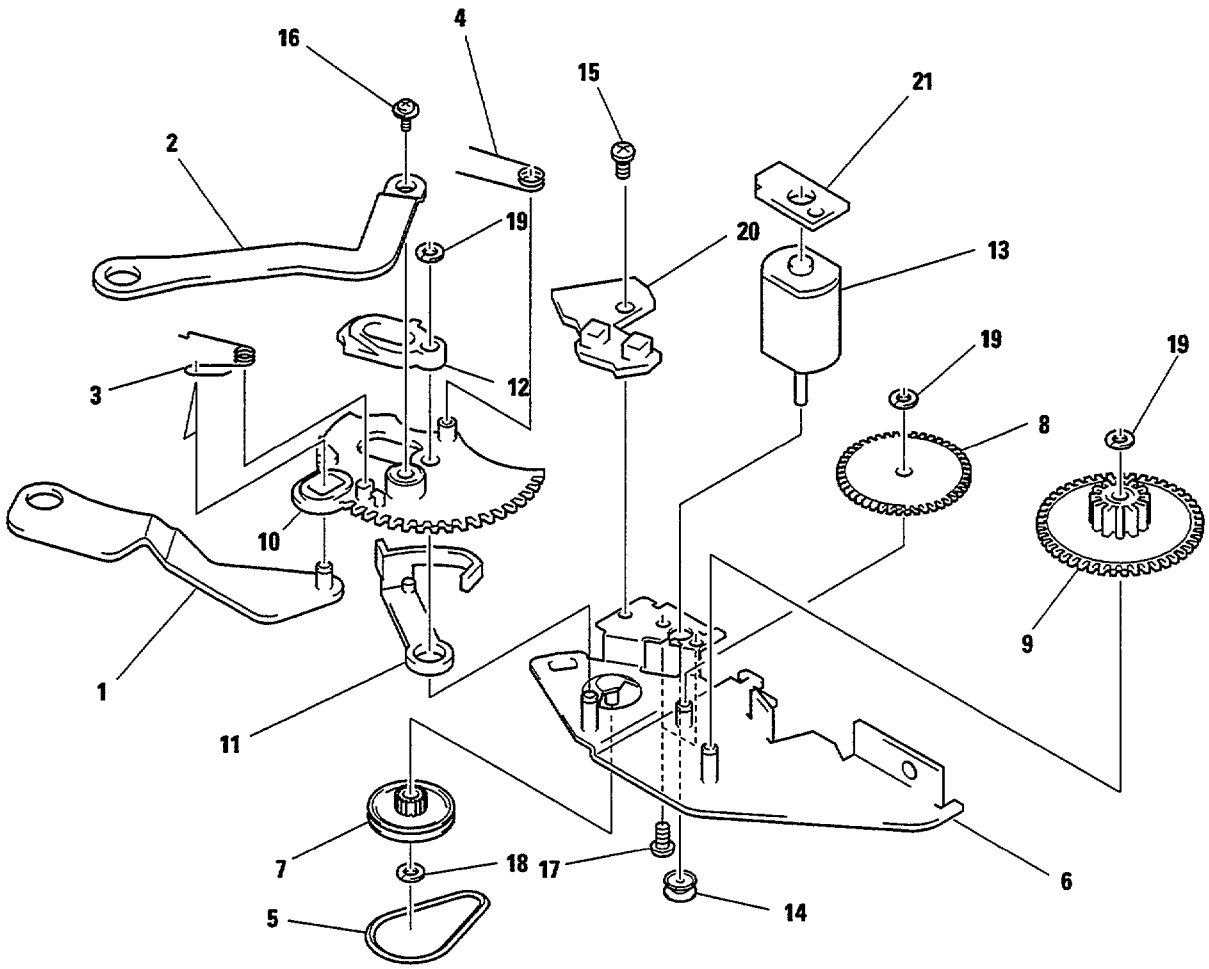
Mark	No.	Description	Parts No.
	1	ASSY MOTOR	RXM1080
NSP	2	JUMPER WIRE	RDD1012
	3	BRACKET MOTOR	RNE1830
	4	SPACER	RNK1822
	5	SCREW	RBA1100
	6	SCREW	PCZ20P040FMC

■ Mechanism unit I and II (2/2)

Mark	No.	Description	Parts No.
	1	ASSY HOLDER HEAD (*1)	RXA1400
	1	ASSY HOLDER HEAD (*2)	RXA1664
	2	FRAME HEAD	RNK1715
	3	LEVER HEAD	RNK1716
	4	SPRING AZIMUTH	RBK1006
	5	ASSY ARM ASSIST	RXA1401
	6	GEAR ARM HEAD	RNK1717
	7	SPRING CASSETTE	RBK1039
	8	EJECT LOCK	RNK1718
	9	CAP REEL	RNK1719
	10	ASSY PINCH ARM L	RXA1403
	11	CHASSIS HEAD	RNE1437
	12	ASSY PINCH ARM R	RXA1404
	13	ARM PLAY L	RNK1866
	14	GEAR PLAY	RNK1867
	15	ARM PLAY R	RNK1868
	16	CHASSIS OS	RXA1411
	17	ASSY SUB REEL L	RXA1407
	18	SOLENOID	RXP1020
	19	WIRE	RDC1006
	20	ARM RVS	RNK1721
	21	GEAR FF	RNK1723
	22	ASSY ARM FR	RXA1412
	23	ASSY PULLEY FR	RXA1413
	24	BELT FR	REB1292
	25	METAL	RNG1048
	26	ASSY FLYWHEEL L	RXA1690
	27	METAL	RNG1005
	28	ARM BRAKE	RNK1724
	29	ASSY SUB REEL R	RXA1408
	30	ARM TRIGER	RNK1722
	31	GEAR CAM	RNK1725
	32	METAL	RNG1049
	33	ASSY FLYWHEEL R	RXA1691
	34	METAL	RNG1004
	35	.....	
	36	.....	
	37	P. C. BOARD	RNP1610
	38	SWITCH MODE	RSN1020
	39	SWITCH (LEAF)	RSN1019
	40	HALL IC	DN6851A
	41	BRACKET FW (*1)	RNE1854
	41	BRACKET FW (*2)	RNE1438
	42	PULLEY (*1 only)	RNK2132
	43	.....	
	44	BELT FW (*1 only)	REB1291
	45	BELT MAIN (* 1)	REB1290
	45	BELT MAIN (* 2)	REB1289
	46	P. C. BOARD	RNP1348
	47	HOUSING (*1)	RKP1396
	47	HOUSING (*2)	RKP1397
	48	CONNECTOR (*1)	RKP1713
	48	CONNECTOR (*2)	RKP1714
	49	ASSY HOLDER (*1 only)	RXA1689
	50	.....	
	51	SPRING	RBH1282
	52	SPRING	RBH1283
	53	SPRING	RBH1284
	54	SPRING	RBH1286
	55	SPRING	RBH1288
	56	SPRING	RBH1291
	57	SPRING	RBH1285
	58	SPRING	RBH1287
	59	SPRING	RBH1289
	60	SPRING	RBH1290
	61	SPRING	RBH1292
	62	FWP SP (SPRING)	RBH1061
	63	SPRING	RBH1325
	64	SCREW (For AZIMUTH)	RBA1023
	65	SCREW	RBA1027
	66	SCREW	RBA1030
	67	SCREW	PCZ20P040FMC
	68	SCREW	RBA1093
	69	SCREW	RBA1094
	70	WASHER	RBF1046
	71	WASHER	WA26D047D013
	72	WASHER (*1 only)	WT13D030D025
	73	SCREW (*1 only)	RBA1118

*Note) *1: Mechanism Unit I*
2: Mechanism Unit II

2.6 GS POWER DOOR MECHANISM ASSY

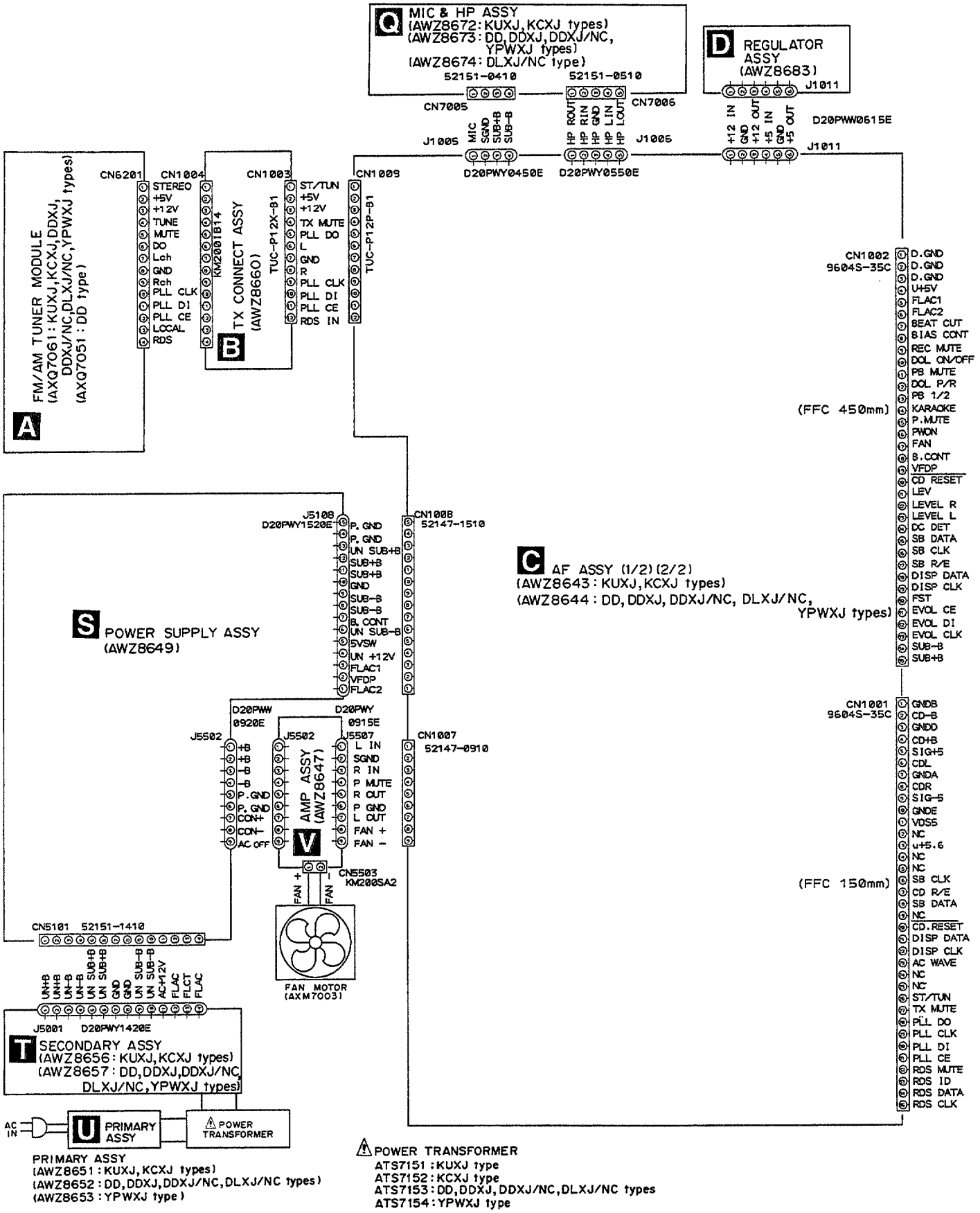


PARTS LIST

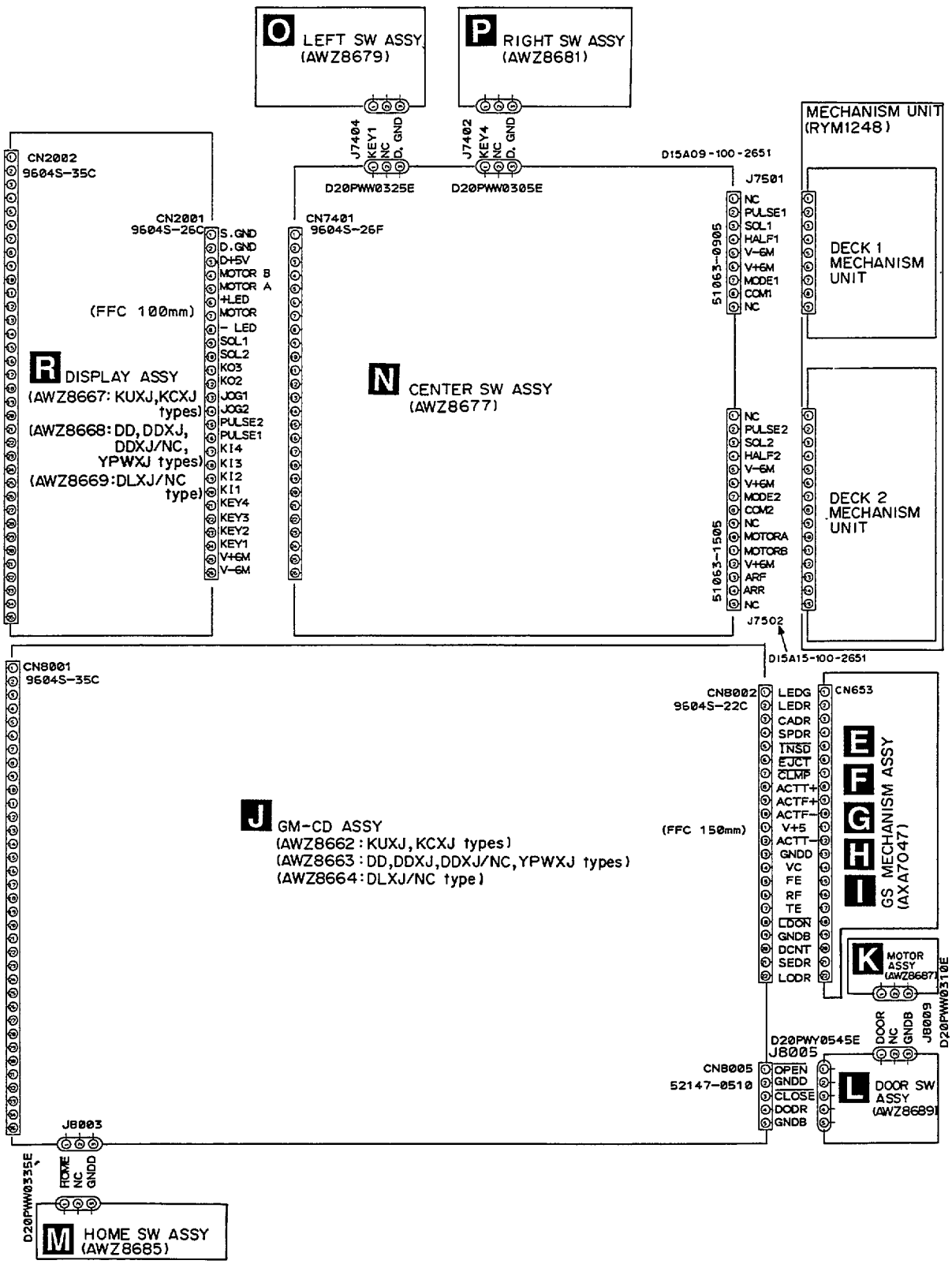
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Link A	ANG7111		11	SW Lever	ANW7107
	2	Link B	ANG7115		12	Push Plate	ANW7108
	3	Door Spring	ABH7144	NSP	13	Motor	AXM7010
	4	Rack Spring	ABH7145		14	Motor Pulley	PNW1634
	5	Door Belt	AEB7067		15	Screw	BBZ20P060FMC
	6	Base Plate	ANB7081		16	Screw	IPZ20P080FMC
	7	Gear Pulley	ANW7103		17	Screw	PMA20P030FMC
	8	Gear B	ANW7104		18	Washer	WT26D060D025
	9	Gear A	ANW7105		19	Washer	WT36D072D025
	10	Drive Gear	ANW7115	NSP	20	Door SW Assy	AWZ8689
				NSP	21	Motor Assy	AWZ8687

3. SCHEMATIC DIAGRAM

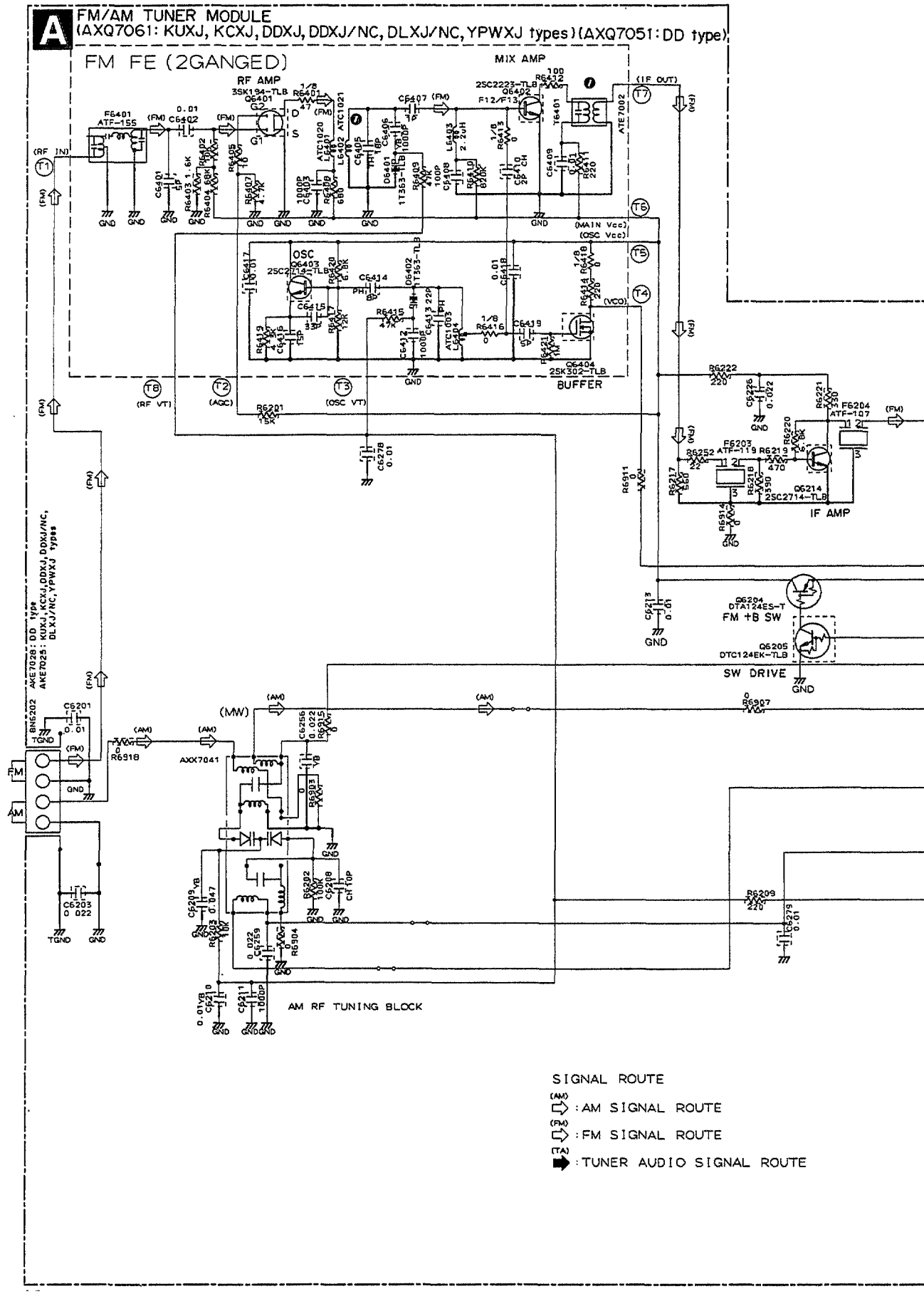
3.1 OVERALL WIRING DIAGRAM

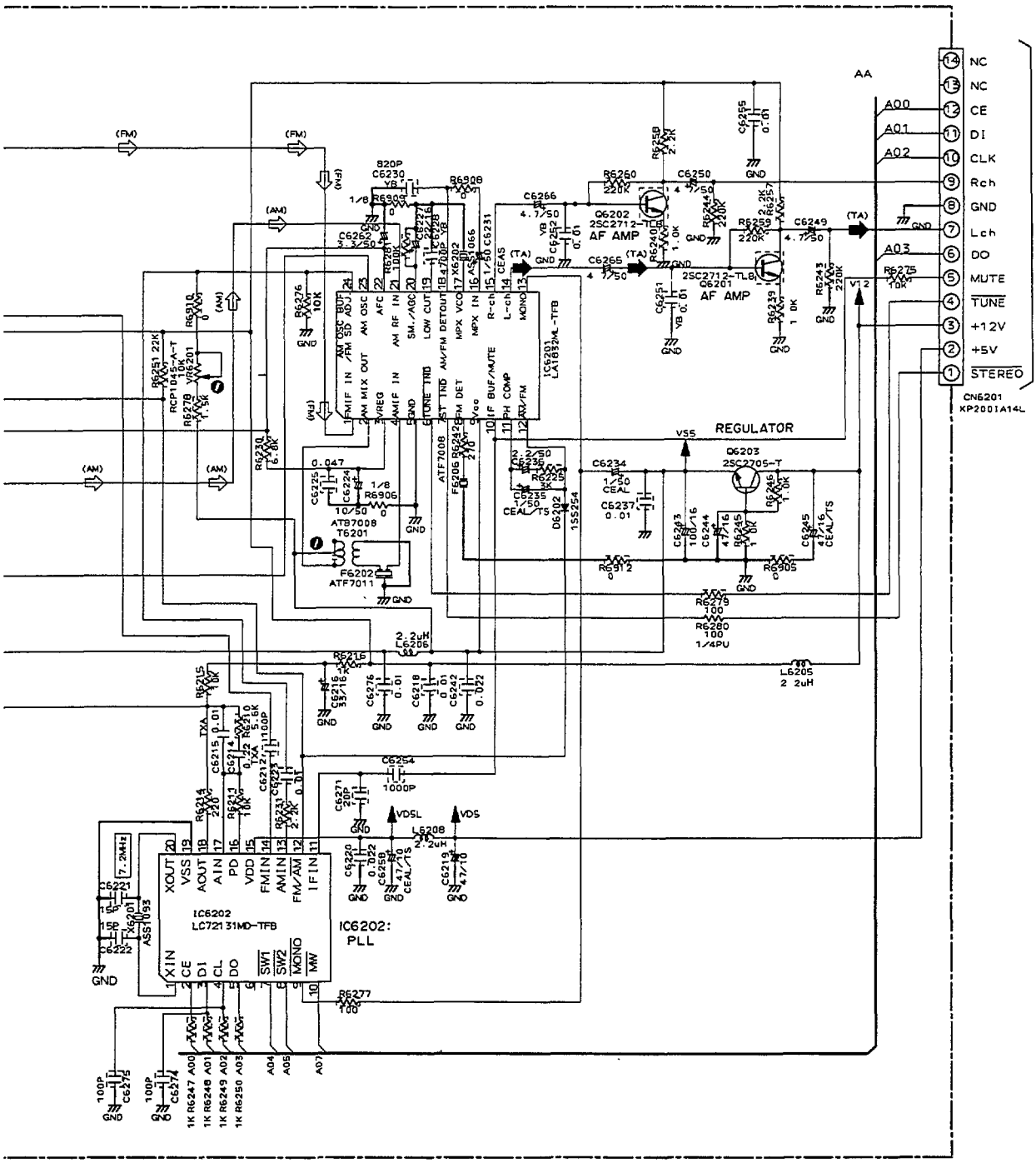


NOTE: When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".


O LEFT SW ASSY (AWZ8679)
P RIGHT SW ASSY (AWZ8681)
J7404 KEY1 NC D. GND
J7402 KEY4 NC D. GND
D20PWW0325E
D20PWW0305E
D15A09-100-2651
MECHANISM UNIT (RYM1248)
J7501
51063-0905
NC PULSE1 SOL1 HALF1 V-GM V+GM MODE1 COM1 NC
DECK 1 MECHANISM UNIT
CN2002 9604S-35C
CN2001 9604S-25C
S.GND D.GND D+5V MOTOR B MOTOR A +LED MOTOR - LED SOL1 SOL2 KO3 KO2 JOG1 JOG2 PULSE2 PULSE1 KI4 KI3 KI2 KI1 KEY4 KEY3 KEY2 KEY1 V+GM V-GM
(FFC 100mm)
CN7401 9604S-26F
R DISPLAY ASSY
(AWZ8667: KUXJ,KCXJ types)
(AWZ8668: DD,DDXJ, DDXJ/NC, YPWXJ types)
(AWZ8669: DLXJ/NC type)
N CENTER SW ASSY (AWZ8677)
51063-1505
NC PULSE2 SOL2 HALF2 V-GM V+GM MODE2 COM2 NC MOTORA MOTORB V+GM ARF ARR NC
DECK 2 MECHANISM UNIT
J7502
D15A15-100-2651
CN8001 9604S-35C
CN8002 9604S-22C
LEDG LEDR CADR SPDR INSD EJCT CLMP ACTT+ ACTF+ ACTF- V+5 ACTT- GNDD VC FE RF TE LDON GNDB DCNT SEDR LODR
CN653
E F G H I GS MECHANISM ASSY (AXA7047)
J GM-CD ASSY
(AWZ8662: KUXJ, KCXJ types)
(AWZ8663: DD,DDXJ,DDXJ/NC,YPWXJ types)
(AWZ8664: DLXJ/NC type)
(FFC 150mm)
K MOTOR ASSY (AWZ8687)
D20PWW0310E
J8009 GNDB NC DOOR
D20PWY0545E
J8005
CN8005 52147-0510
OPEN GNDD CLOSE DOOR GNDB
L DOOR SW ASSY (AWZ8689)
J8003
D20PWW0335E
HOME NC GNDD
M HOME SW ASSY (AWZ8685)

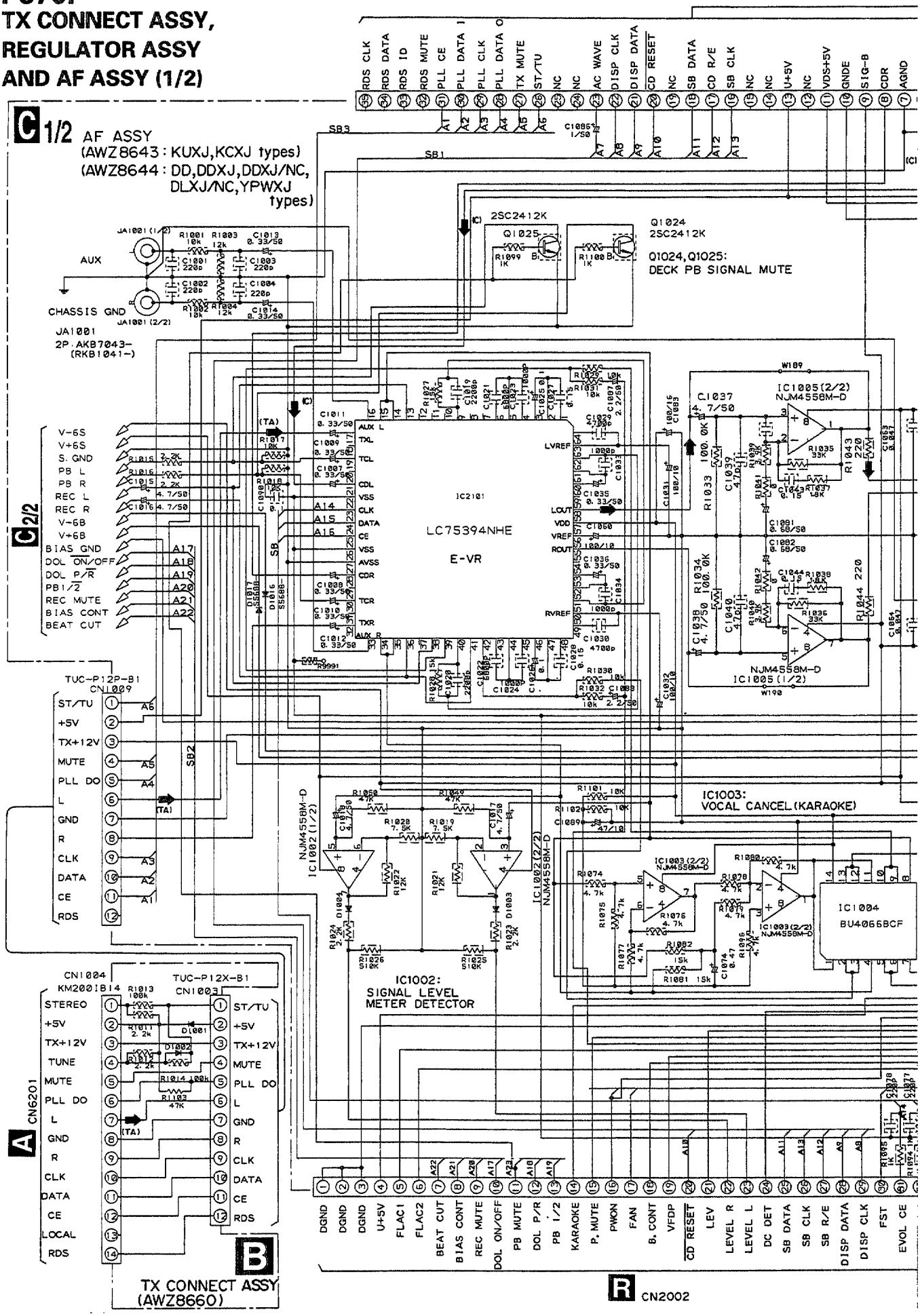
3.2 FM/AM TUNER MODULE

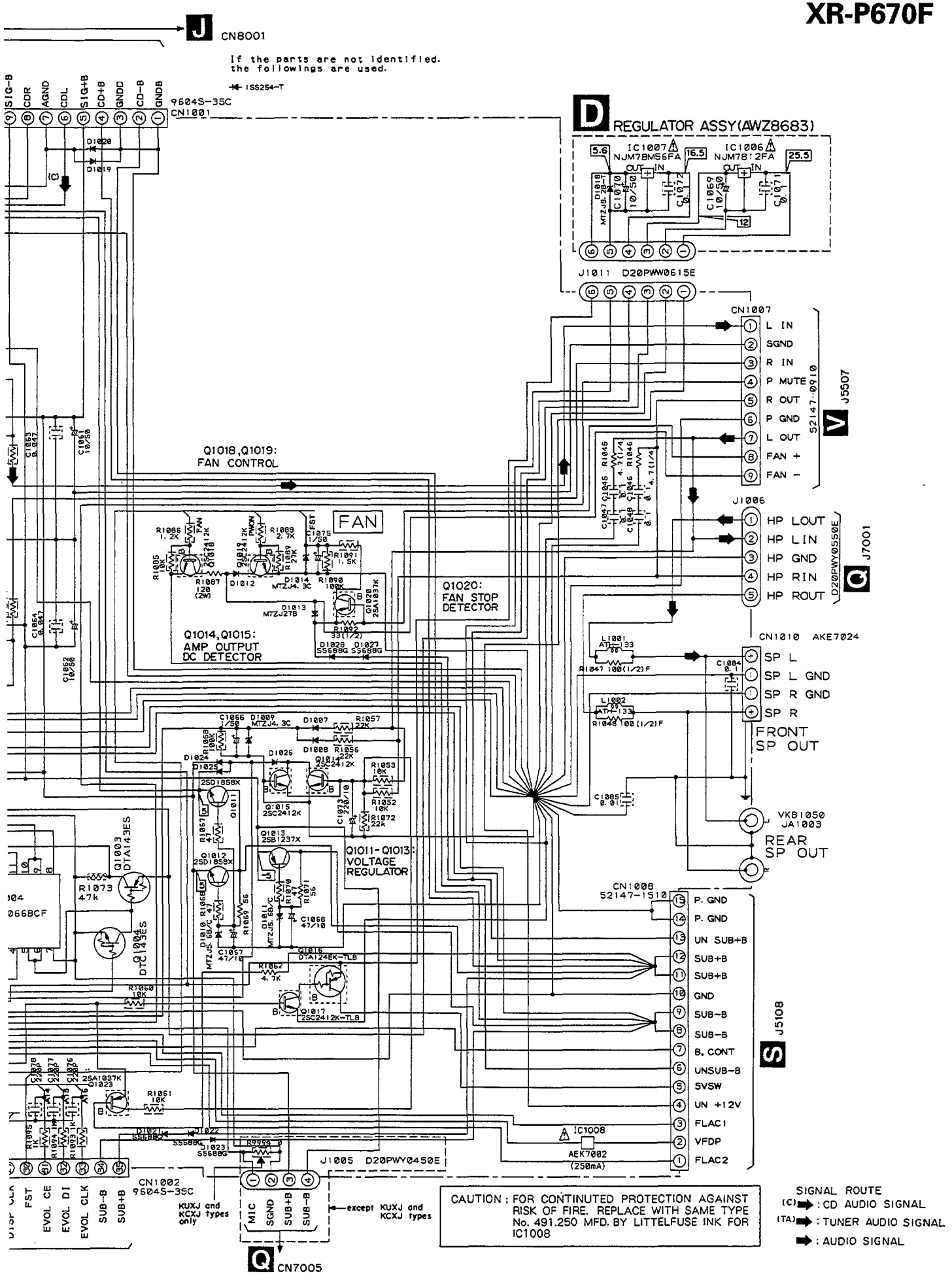



CN1004
CN6201
KP2001A14L
NC
NC
CE
DI
CLK
Rch
GND
Lch
DO
MUTE
TUNE
+12V
+5V
STEREO
REGULATOR
AF AMP
IC6202
LC72131MD-TFB
IC6202:
PLL
(FM)
(AM)

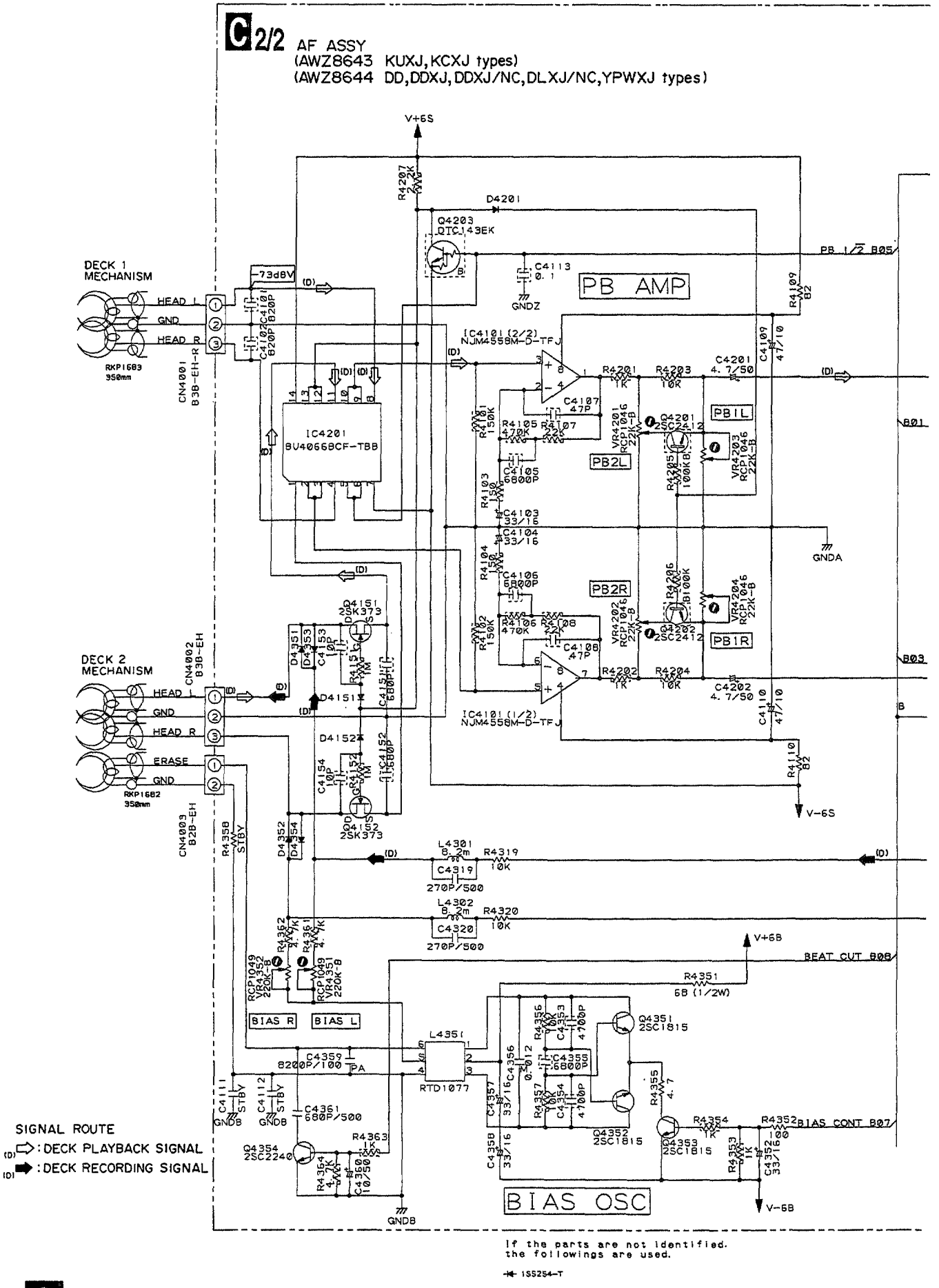
XR-P670F

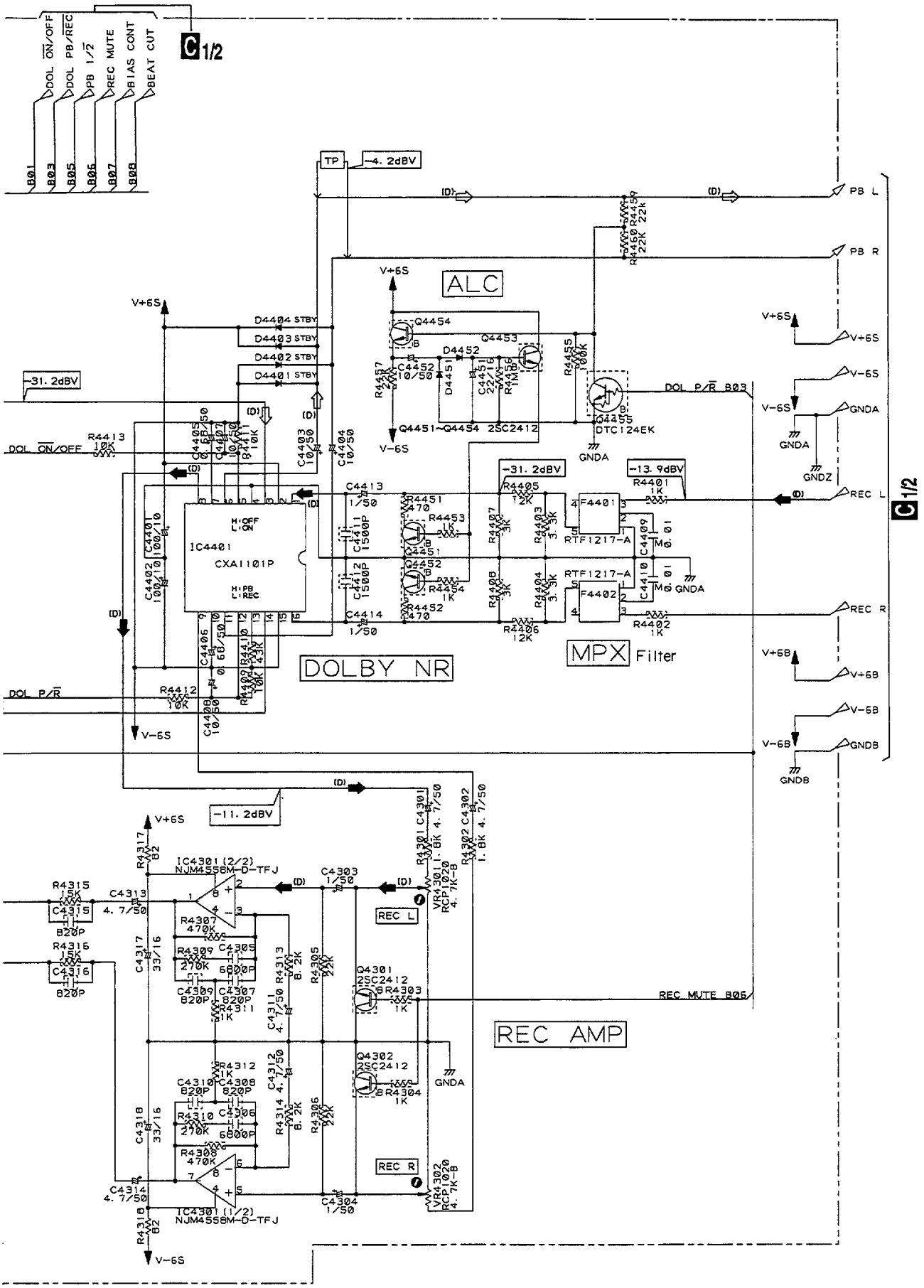
3.3 TX CONNECT ASSY, REGULATOR ASSY AND AF ASSY (1/2)



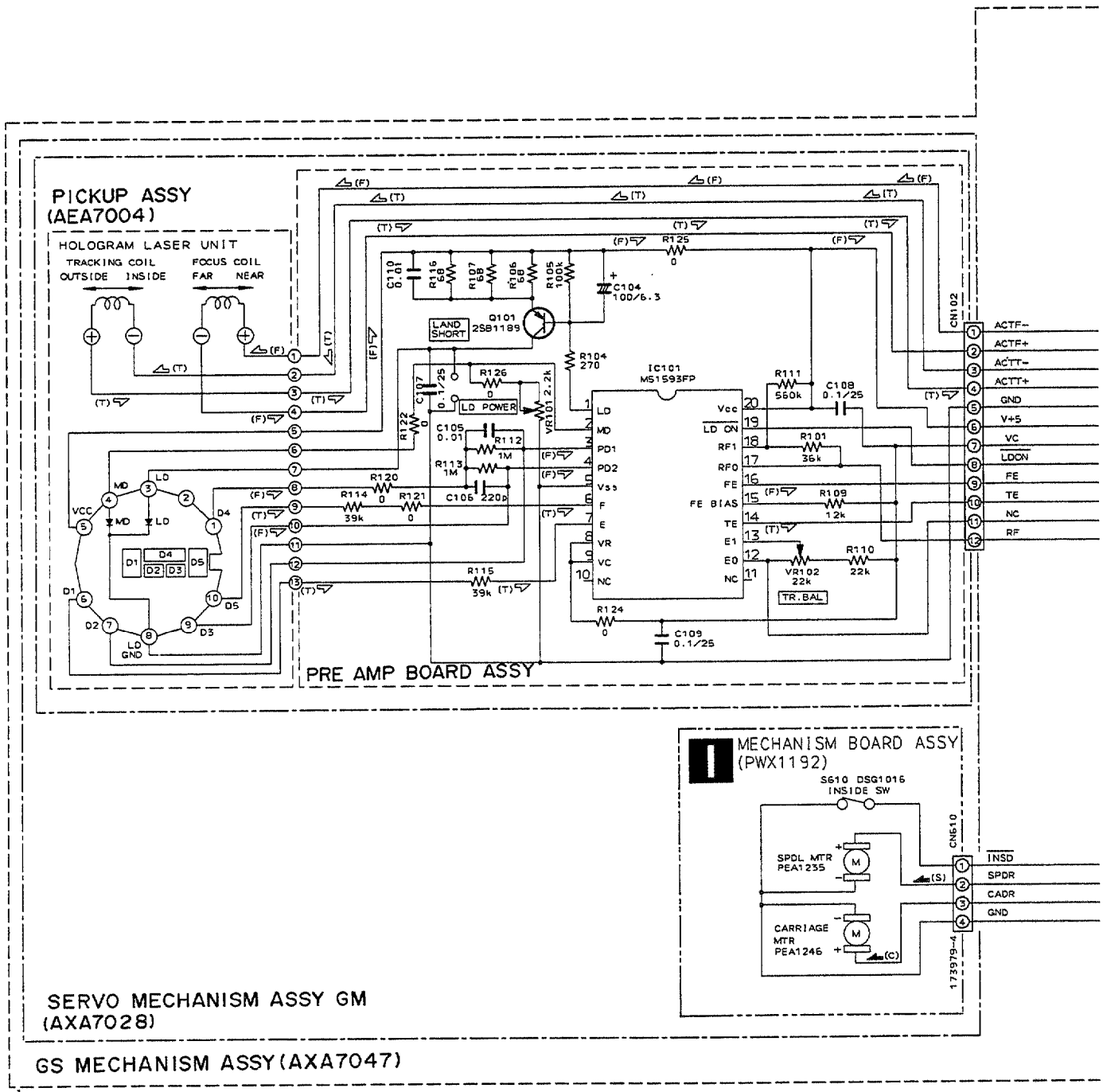

J CN8001
If the parts are not identified, the followings are used.
1SS254-T
9504S-35C
CN1001
SIG-B
CDR
AGND
CDL
SIG+B
CD+B
GNDD
CD-B
GNDB
D REGULATOR ASSY(AWZ8683)
IC1007 NJM78M56FA
IC1006 NJM7812FA
5.6
16.5
25.3
J1011 D20PWW0615E
CN1007
L IN
SGND
R IN
P MUTE
R OUT
P GND
L OUT
FAN +
FAN −
52147-0910
V J5507
J1006
HP LOUT
HP LIN
HP GND
HP RIN
HP ROUT
D20PWY0550E
Q J7001
Q1018,Q1019: FAN CONTROL
FAN
Q1020: FAN STOP DETECTOR
Q1014,Q1015: AMP OUTPUT DC DETECTOR
CN1010 AKE7024
SP L
SP L GND
SP R GND
SP R
FRONT SP OUT
VK81050 JA1003
REAR SP OUT
Q1011-Q1013: VOLTAGE REGULATOR
CN1008 52147-1510
P. GND
P. GND
UN SUB+B
SUB+B
SUB+B
GND
SUB-B
SUB-B
B. CONT
UNSUB-B
5VSW
UN +12V
FLAC1
VFDP
FLAC2
S J5108
IC1008
AEK7002
(250mA)
J1005 D20PWY0450E
CN1002 9504S-35C
KUXJ and KCXJ types only
except KUXJ and KCXJ types
MIC
SGND
SUB+B
SUB-B
Q CN7005
CAUTION ; FOR CONTINUTED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE No. 491.250 MFD. BY LITTLEFUSE INK FOR IC1008
SIGNAL ROUTE
(C) : CD AUDIO SIGNAL
(TA) : TUNER AUDIO SIGNAL
: AUDIO SIGNAL

3.4 AF ASSY (2/2)


C2/2 AF ASSY
(AWZ8643 KUXJ, KCXJ types)
(AWZ8644 DD, DDXJ, DDXJ/NC, DLXJ/NC, YPWXJ types)
V+6S
V-6S
V+6B
V-6B
DECK 1 MECHANISM
DECK 2 MECHANISM
HEAD L
HEAD R
GND
ERASE
RKP1683
RKP1682
CN4001 B3B-EH-R
CN4002 B3B-EH
CN4003 B2B-EH
73dBV
IC4201 BU4066BCF-TBB
IC4101 (2/2) NJM4558M-D-TFJ
IC4101 (1/2) NJM4558M-D-TFJ
PB AMP
PB1L
PB2L
PB2R
PB1R
PB 1/2 B05
B01
B03
B
GNDA
GNDB
GNDZ
BEAT CUT B06
BIAS CONT B07
BIAS R
BIAS L
BIAS OSC
SIGNAL ROUTE
(D) : DECK PLAYBACK SIGNAL
(D) : DECK RECORDING SIGNAL
If the parts are not identified, the followings are used.
1SS254-T


C 1/2
DOL ON/OFF
DOL PB/REC
PB 1/2
REC MUTE
BIAS CONT
BEAT CUT
B01
B03
B05
B06
B07
B08
TP
-4. 2dBV
PB L
PB R
ALC
V+6S
D4404 STBY
D4403 STBY
D4402 STBY
D4401 STBY
Q4454
Q4453
D4452
D4451
Q4451~Q4454 2SC2412
DTC124EK
DOL P/R B03
-31. 2dBV
DOL ON/OFF
IC4401
CXA1101P
H:OFF
L:ON
H:PB
L:REC
-31. 2dBV
-13. 9dBV
REC L
REC R
RTF1217-A
F4401
F4402
MPX Filter
DOLBY NR
DOL P/R
V-6S
V+6B
V-6B
GNDA
GNDB
GNDZ
-11. 2dBV
IC4301(2/2)
NJM4558M-D-TFJ
IC4301(1/2)
NJM4558M-D-TFJ
REC L
REC R
REC MUTE B06
REC AMP
Q4301
2SC2412
Q4302
2SC2412
C 2/2

3.5 GS MECHANISM ASSY



SIGNAL ROUTE

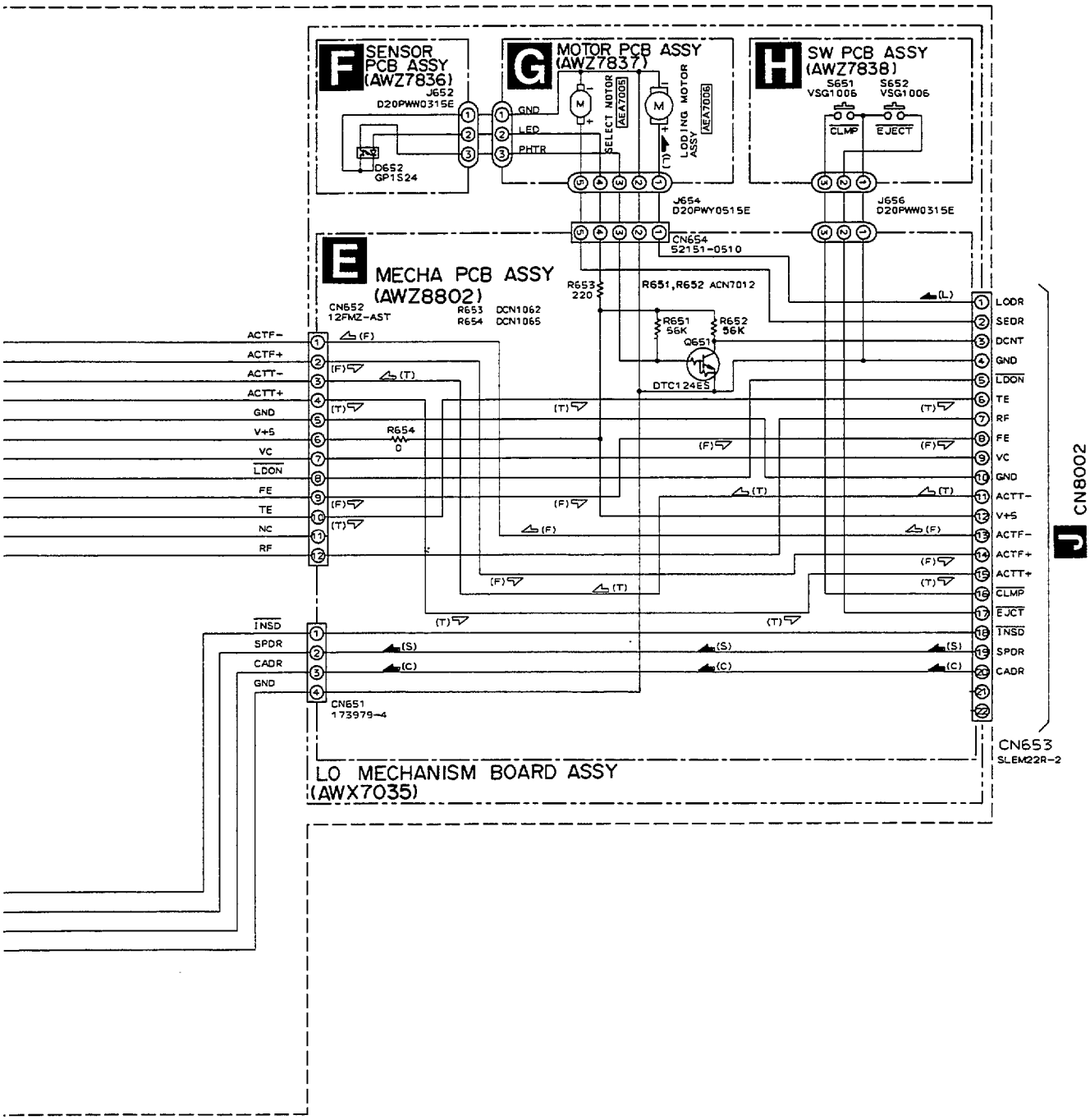
(F) : FOCUS SERVO LOOP LINE

(T) : TRACKING SERVO LOOP LINE

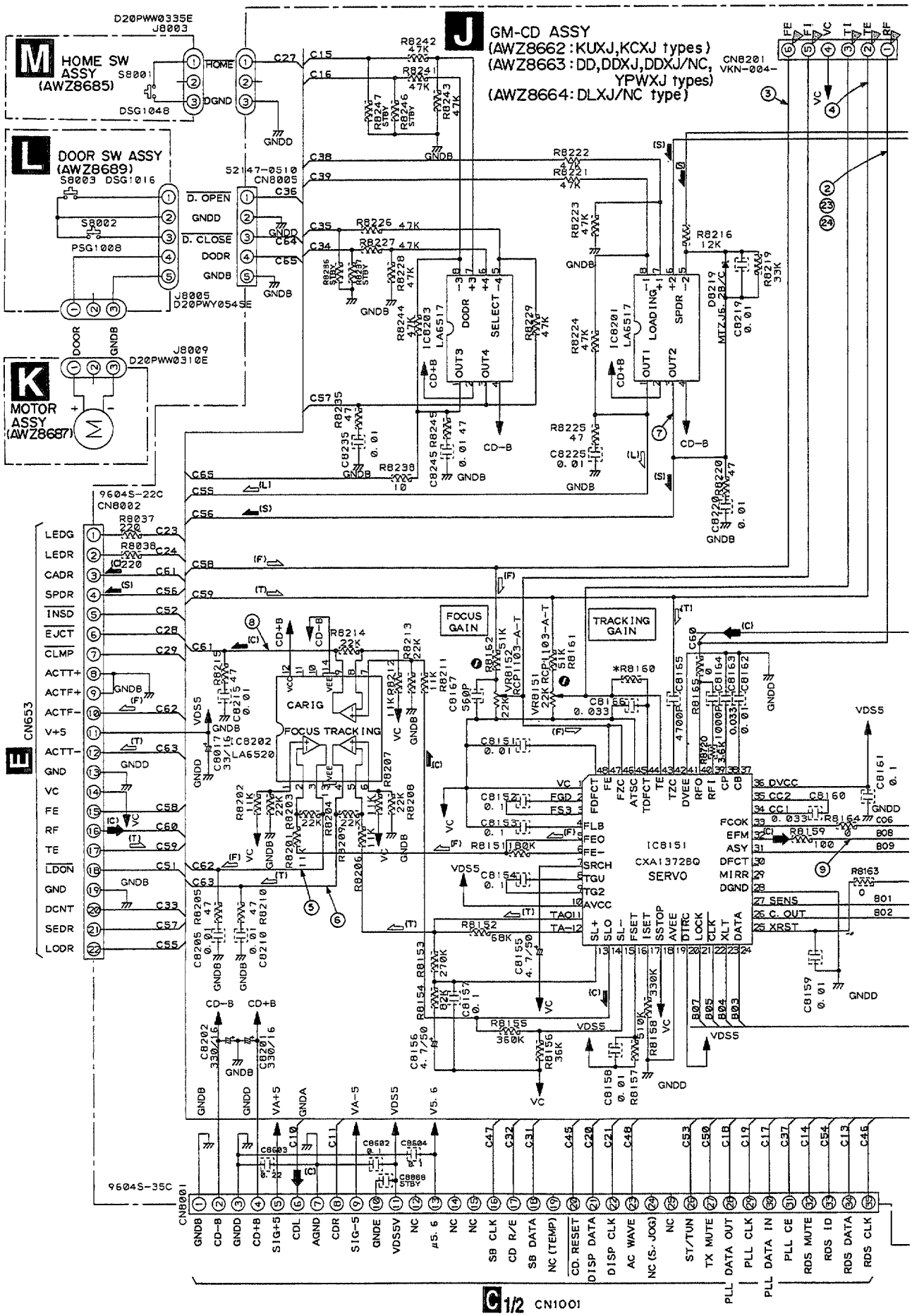
(L) : LOADING MOTOR ROUTE

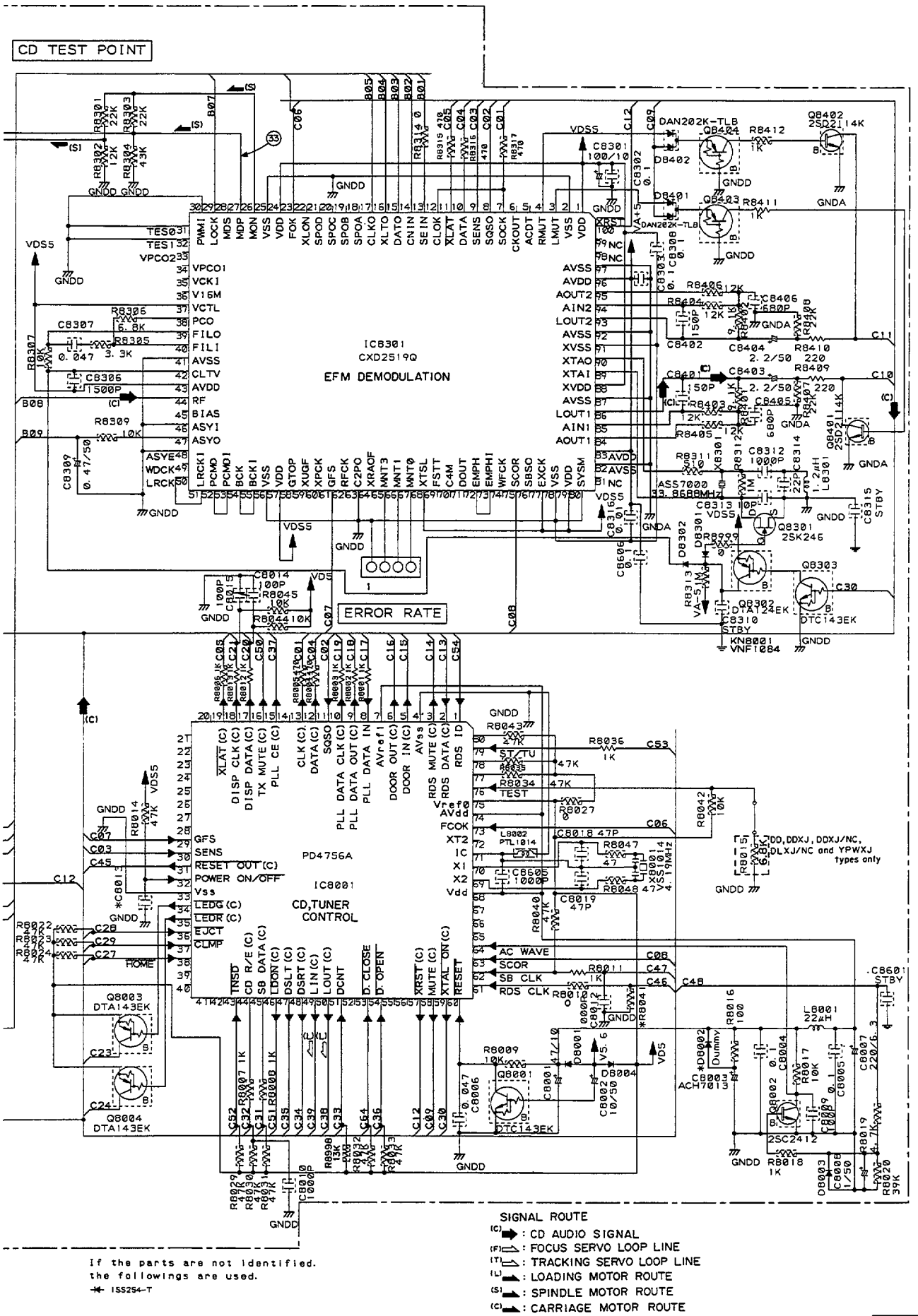
(S) : SPINDLE MOTOR ROUTE

(C) : CARRIAGE MOTOR ROUTE


F SENSOR PCB ASSY (AWZ7836)
J652 D20PWW0315E
D652 GP1S24
G MOTOR PCB ASSY (AWZ7837)
GND
LED
PHTR
SELECT MOTOR AEA7005
LOADING MOTOR ASSY AEA7006
H SW PCB ASSY (AWZ7838)
S651 VSG1006
S652 VSG1006
CLMP
EJECT
J654 D20PWY0515E
J656 D20PWW0315E
CN654 52151-0510
E MECHA PCB ASSY (AWZ8802)
CN652 12FMZ-AST
R653 DCN1062
R654 DCN1065
R653 220
R651,R652 ACN7012
R651 56K
R652 56K
Q651 DTC124ES
R654 0
ACTF-
ACTF+
ACTT-
ACTT+
GND
V+5
VC
LDON
FE
TE
NC
RF
LODR
SEDR
DCNT
GND
LDON
TE
RF
FE
VC
GND
ACTT-
V+5
ACTF-
ACTF+
ACTT+
CLMP
EJCT
INSD
SPDR
CADR
GND
CN8002
CN653 SLEM22R-2
INSD
SPDR
CADR
GND
CN651 173979-4
LO MECHANISM BOARD ASSY (AWX7035)

3.6 GM-CD ASSY, MOTOR ASSY, DOOR SW ASSY AND HOME SW ASSY




CD TEST POINT
IC8301
CXD2519Q
EFM DEMODULATION
IC8001
PD4756A
CD,TUNER
CONTROL
ERROR RATE
SIGNAL ROUTE
(C): CD AUDIO SIGNAL
(F): FOCUS SERVO LOOP LINE
(T): TRACKING SERVO LOOP LINE
(L): LOADING MOTOR ROUTE
(S): SPINDLE MOTOR ROUTE
(C): CARRIAGE MOTOR ROUTE
If the parts are not identified.
the followings are used.
ISS254-T
DDD, DDXJ, DDXJ/NC,
DLXJ/NC and YPWXJ
types only

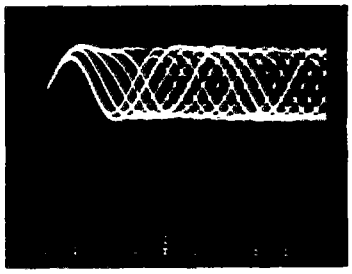
XR-P670F

WAVEFORMS

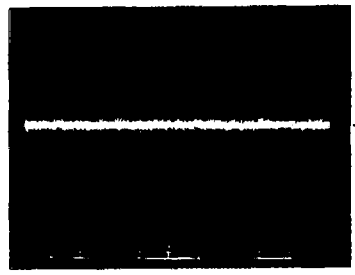
Note : The encircled numbers denote measuring points in the schematic diagram.

*1 FOCUS-IN : Press the key without loading a disc.

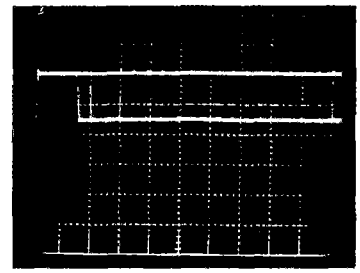
② TP1-Pin 1 : PLAY MODE
(RF)
500mV/div 500nsec/div



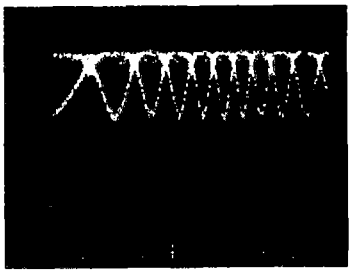
⑤ IC8202-Pin 3 : PLAY MODE
(FODR)
1V/div 1msec/div



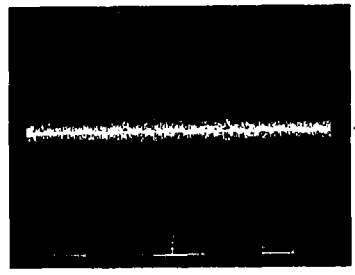
⑨ IC8151-Pin 32 : PLAY MODE
(EFM)
2V/div 500nsec/div



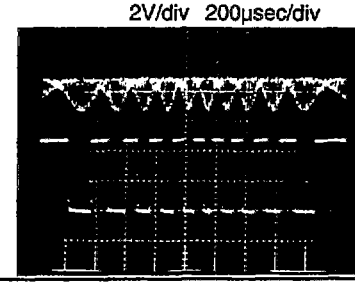
② TP1-Pin 1 : TRACK SEARCH MODE
(RF)
500mV/div 200µsec/div



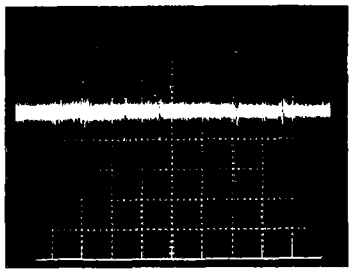
⑥ IC8202-Pin 4 : PLAY MODE
(TRDR)
500mV/div 1msec/div



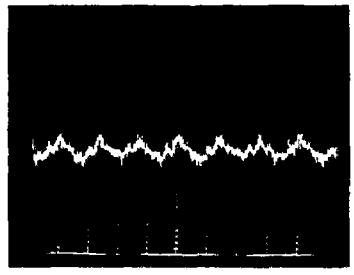
㉓ : TRACK SEARCH MODE
Upper : TP1-Pin 1 (RF) 1V/div
Lower : IC8151-Pin 26 (C.OUT)
2V/div 200µsec/div



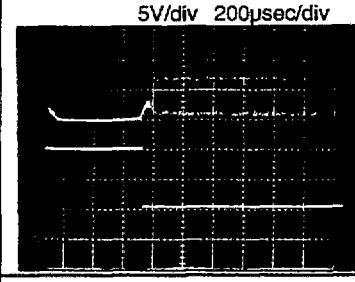
③ TP1-Pin 6 : PLAY MODE
(FOER)
100mV/div 10msec/div



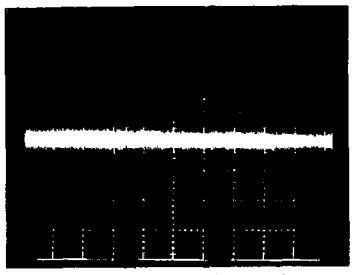
⑦ IC8201-Pin 3 : PLAY MODE
(SPDR)
1V/div 50msec/div



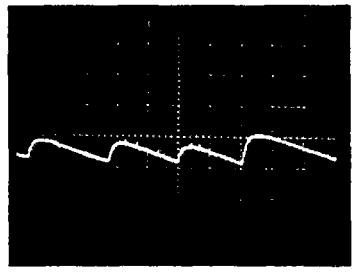
㉔ : PLAY MODE
Upper : TP1-Pin 1 (RF) 1V/div
Lower : IC8151-Pin 30 (DFCT)
5V/div 200µsec/div



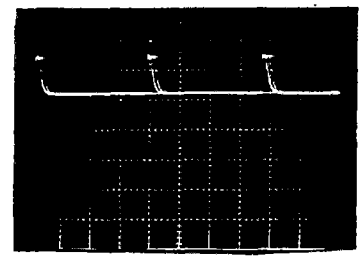
④ TP1-Pin 2 : PLAY MODE
(TRER)
1V/div 10msec/div



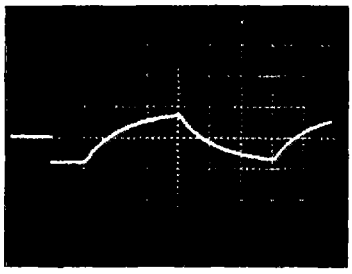
⑧ IC8202-Pin 9 : PLAY MODE
(CADR)
1V/div 2S/div



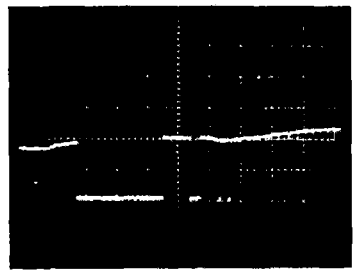
㉝ IC8301-Pin 27 : PLAY MODE
(MDP)
2V/div 2µsec/div



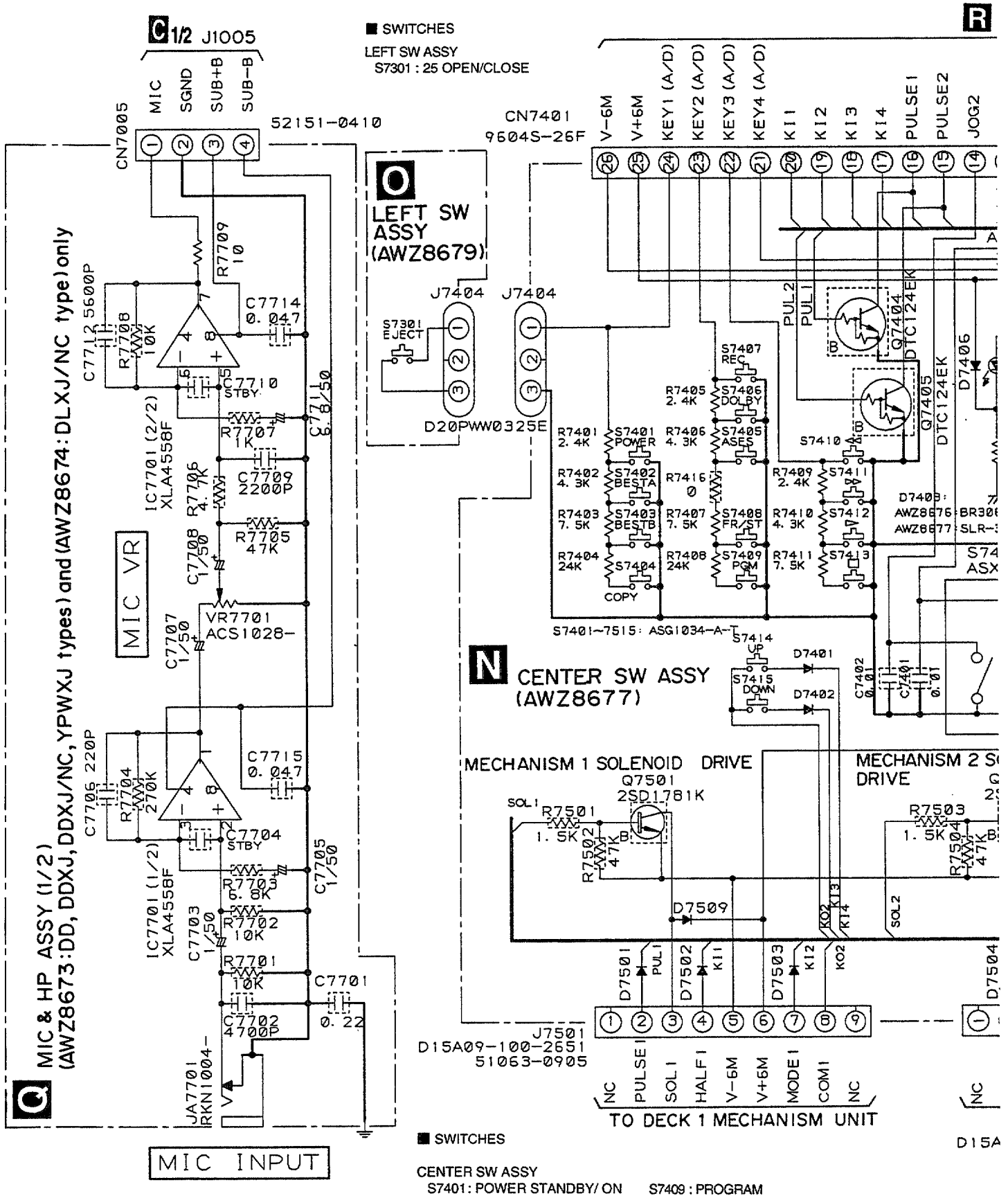
⑤ IC8202-Pin 3 : FOCUS-IN (*1) MODE
(FODR)
1V/div 200msec/div

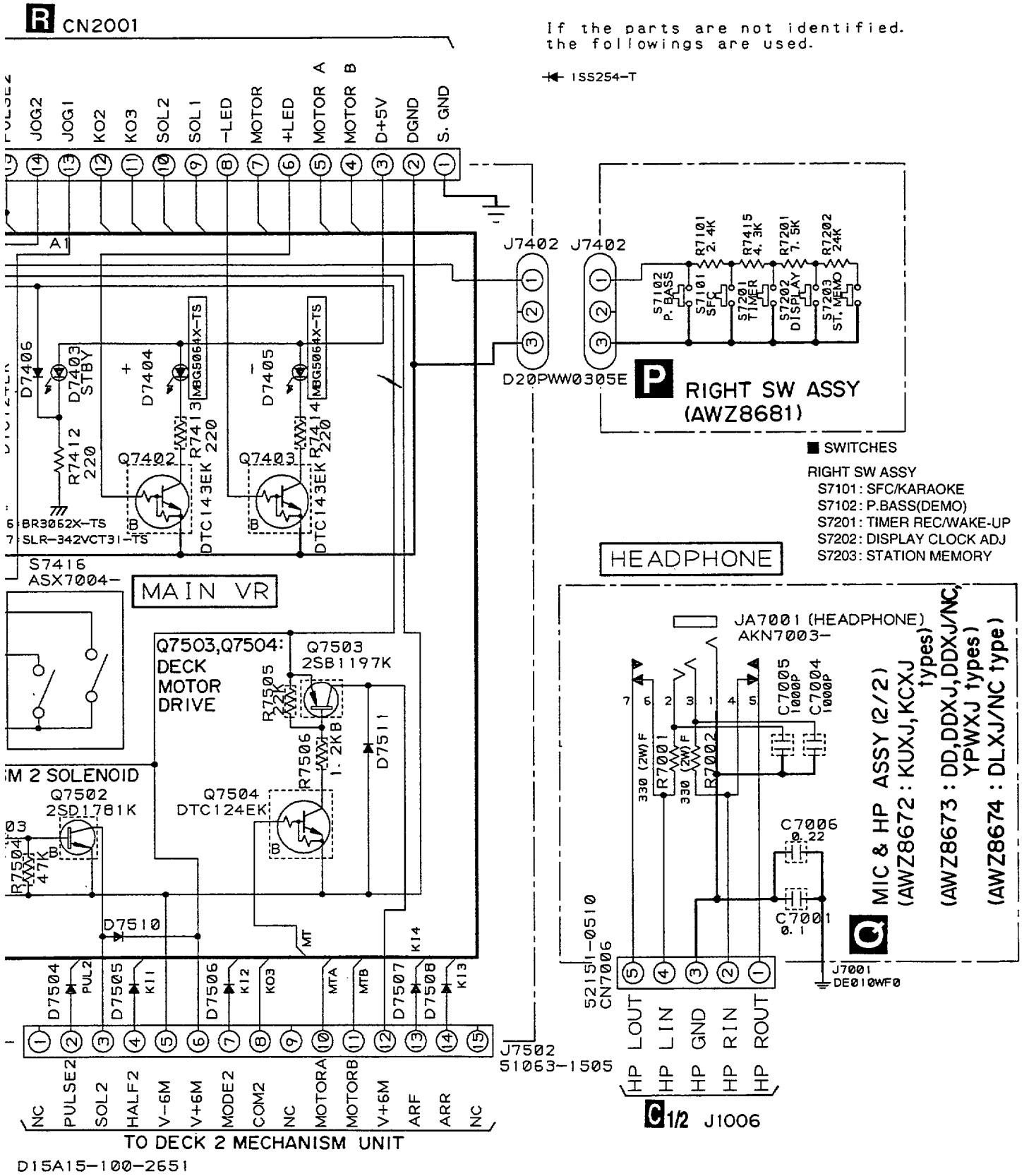


⑧ IC8202-Pin 9 : TRACK SEARCH MODE
(CADR)
2V/div 200msec/div

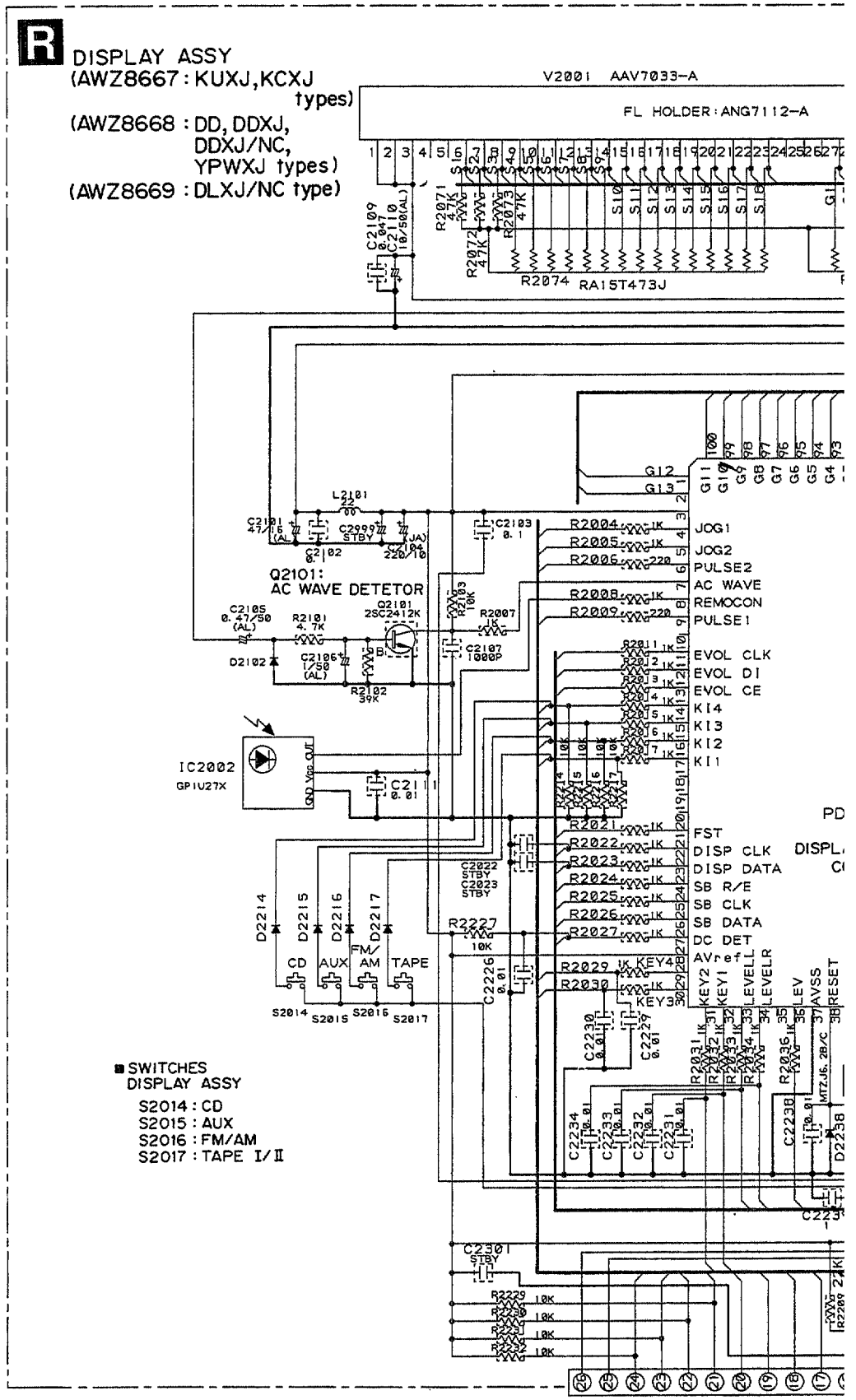


3.7 CENTER SW ASSY, LEFT SW ASSY, RIGHT SW ASSY AND MIC & HP ASSY



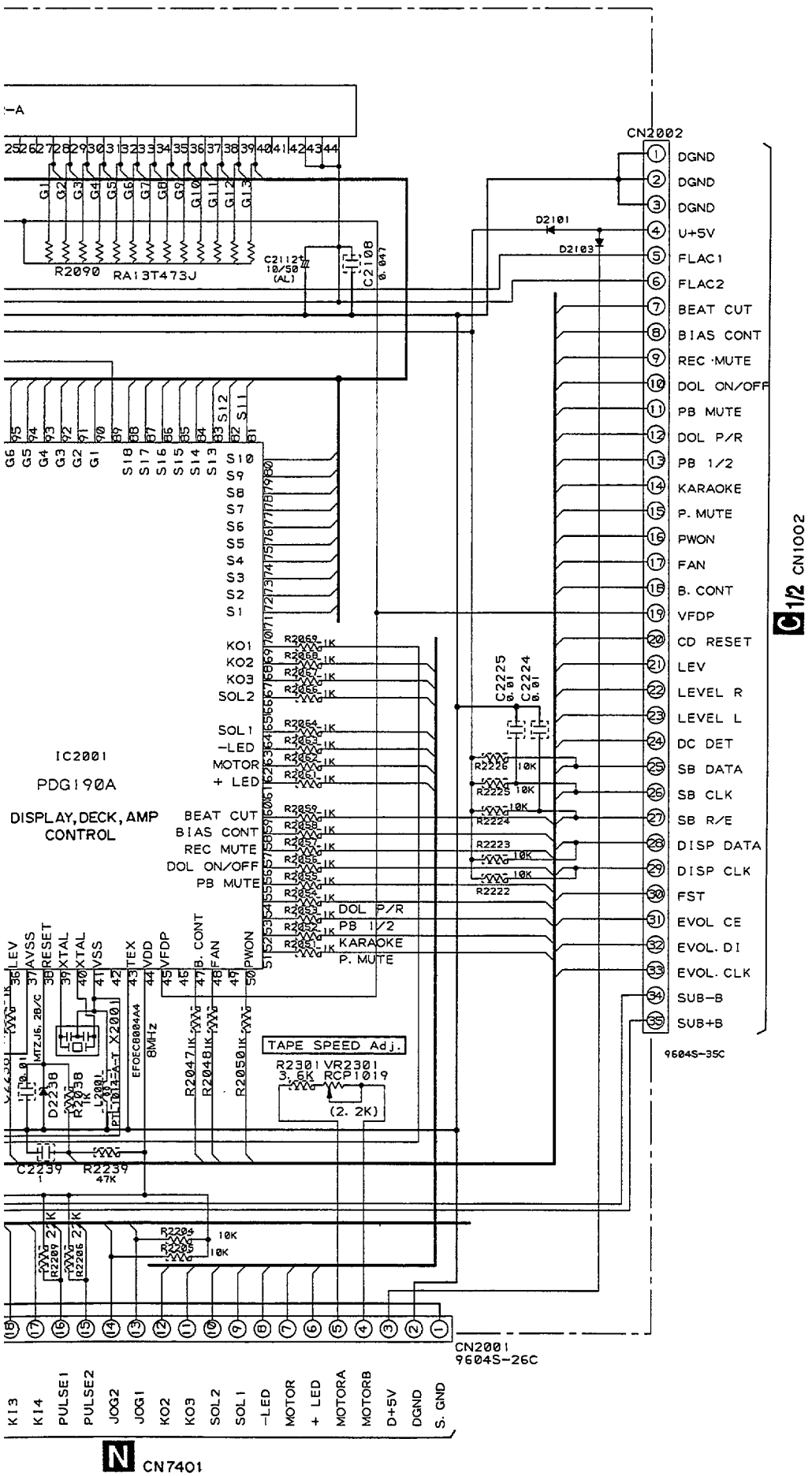

R CN2001
If the parts are not identified.
the followings are used.
ISS254-T
PULSE4
JOG2
JOG1
KO2
KO3
SOL2
SOL1
-LED
MOTOR
+LED
MOTOR A
MOTOR B
D+5V
DGND
S. GND
J7402 J7402
D20PWW0305E
P RIGHT SW ASSY
(AWZ8681)
S7102 P. BASS
S7101 SFC
S7201 TIMER
S7202 DISPLAY
S7203 ST. MEMO
R7101 2. 4K
R7415 4. 3K
R7201 7. 5K
R7202 24K
SWITCHES
RIGHT SW ASSY
S7101: SFC/KARAOKE
S7102: P.BASS(DEMO)
S7201: TIMER REC/WAKE-UP
S7202: DISPLAY CLOCK ADJ
S7203: STATION MEMORY
D7406
D7403 STBY
D7404
D7405
MBG506HX-TS
R7412 220
R7413 220
R7414 220
Q7402
Q7403
DTC143EK
6 BR3062X-TS
7 SLR-342VCT31-TS
S7416
ASX7004-
MAIN VR
HEADPHONE
JA7001 (HEADPHONE)
AKN7003-
Q7503,Q7504:
DECK
MOTOR
DRIVE
Q7503
2SB1197K
R7505 22K
R7506 1. 2KB
D7511
Q7502
2SD1781K
Q7504
DTC124EK
R7504 47K
D7510
MT
K14
M 2 SOLENOID
C7005 1000P
C7004 1000P
R7001 330 (2W) F
R7002 330 (2W) F
C7006 0. 22
C7001 0. 1
Q MIC & HP ASSY (2/2)
(AWZ8672 : KUXJ,KCXJ types)
(AWZ8673 : DD,DDXJ,DDXJ/NC, YPWXJ types)
(AWZ8674 : DLXJ/NC type)
J7001
DE010WF0
52151-0510
CN7006
HP LOUT
HP LIN
HP GND
HP RIN
HP ROUT
C 1/2 J1006
D7504 PUL2
D7505 K11
D7506 K12
KO3
MTA
MTB
D7507
D7508 K13
J7502
51063-1505
NC
PULSE2
SOL2
HALF2
V-6M
V+6M
MODE2
COM2
NC
MOTORA
MOTORB
V+6M
ARF
ARR
NC
TO DECK 2 MECHANISM UNIT
D15A15-100-2651

3.8 DISPLAY ASSY

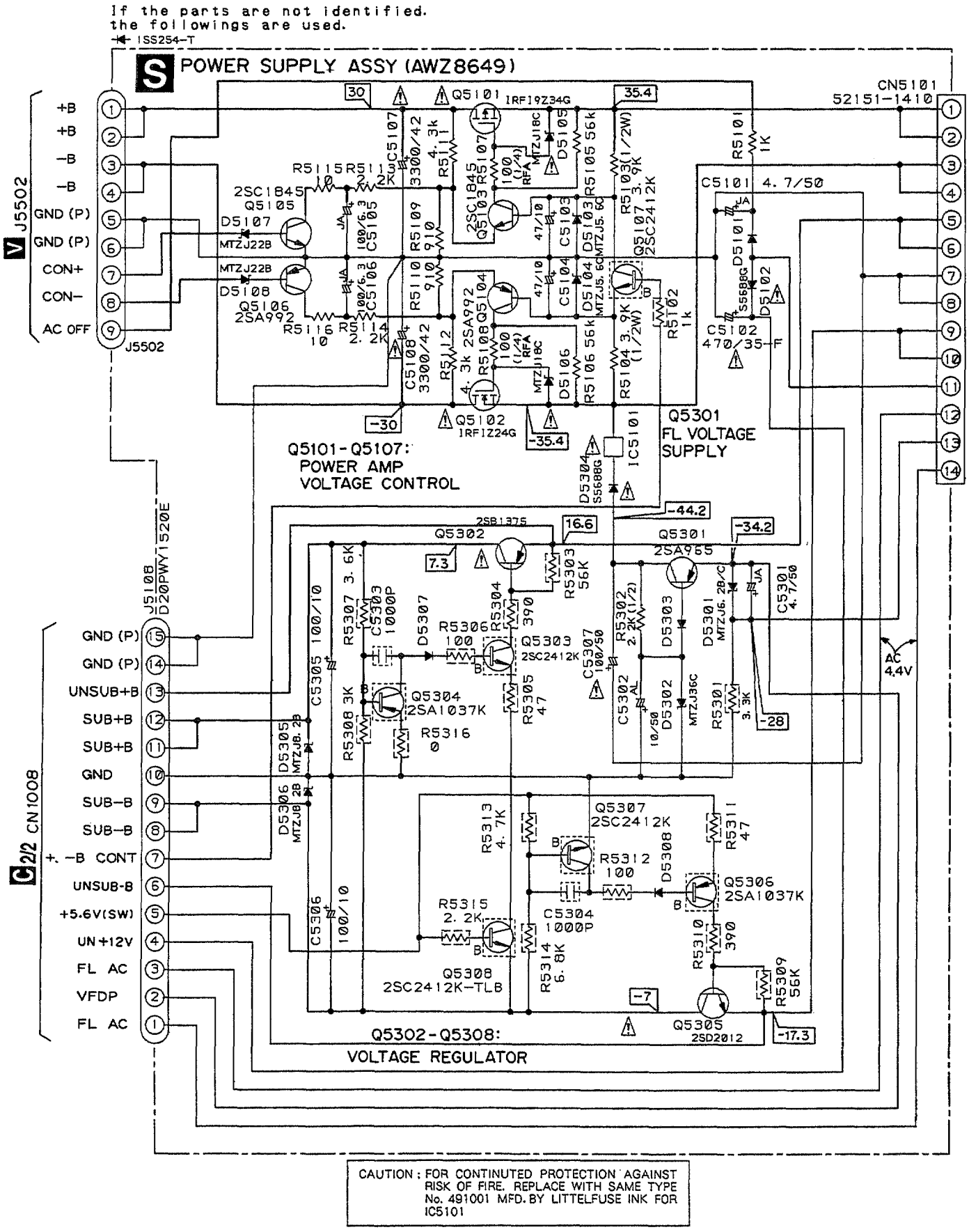


If the parts are not identified.
the followings are used.

1SS254-T

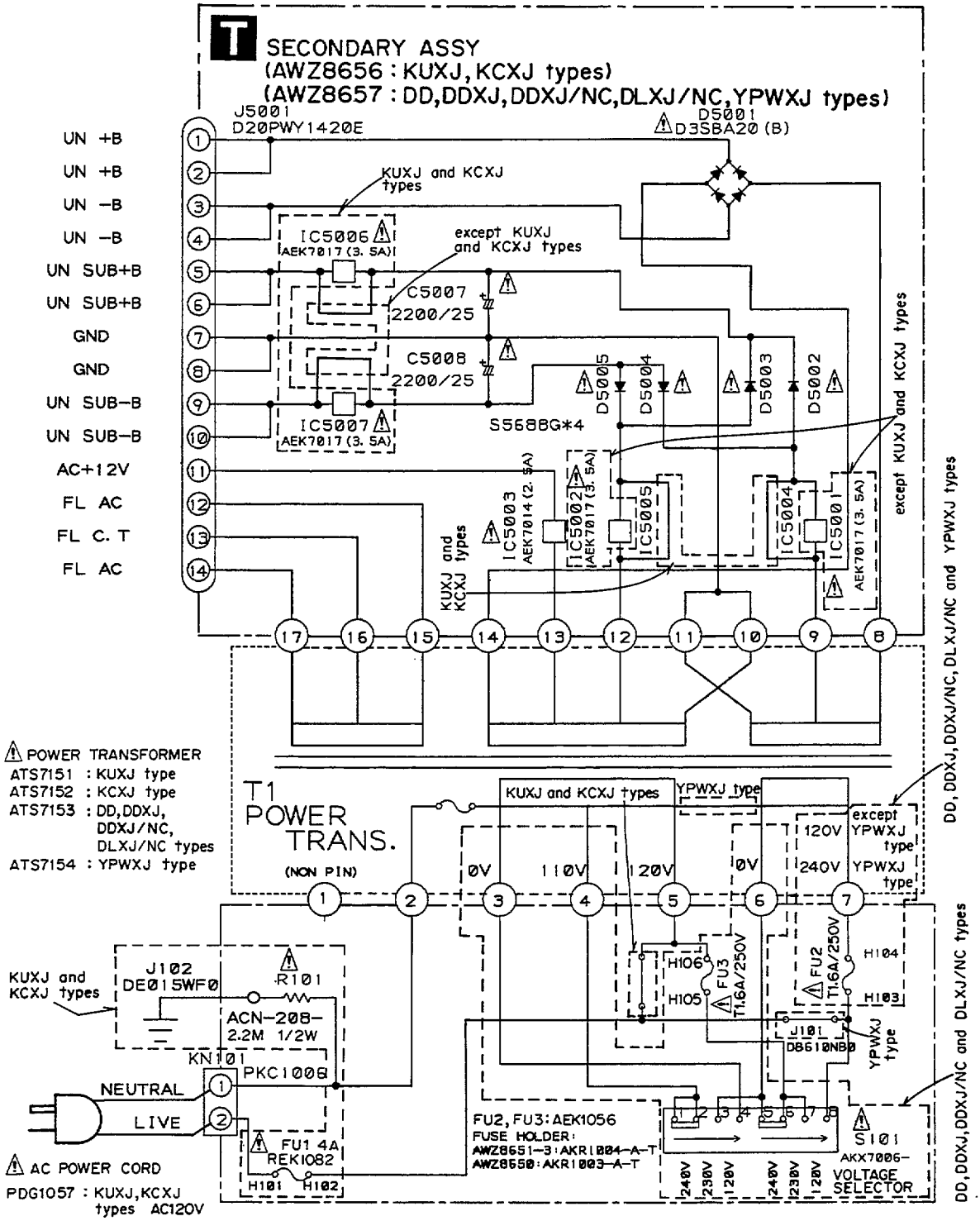

CN2002
DGND
DGND
DGND
U+5V
FLAC1
FLAC2
BEAT CUT
BIAS CONT
REC MUTE
DOL ON/OFF
PB MUTE
DOL P/R
PB 1/2
KARAOKE
P. MUTE
PWON
FAN
B. CONT
VFDP
CD RESET
LEV
LEVEL R
LEVEL L
DC DET
SB DATA
SB CLK
SB R/E
DISP DATA
DISP CLK
FST
EVOL CE
EVOL. DI
EVOL. CLK
SUB-B
SUB+B
C 1/2 CN1002
9604S-35C
IC2001
PDG190A
DISPLAY, DECK, AMP CONTROL
BEAT CUT
BIAS CONT
REC MUTE
DOL ON/OFF
PB MUTE
DOL P/R
PB 1/2
KARAOKE
P. MUTE
TAPE SPEED Adj.
R2301 VR2301
3.6K RCP1019
(2.2K)
CN2001
9604S-26C
K13
K14
PULSE1
PULSE2
JOG2
JOG1
KO2
KO3
SOL2
SOL1
-LED
MOTOR
+ LED
MOTORA
MOTORB
D+5V
DGND
S. GND
N CN7401

3.9 POWER SUPPLY ASSY, SECONDARY ASSY AND PRIMARY ASSY



CAUTION : FOR CONTINUTED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE No. 491001 MFD. BY LITTELFUSE INK FOR IC5101

CAUTION : FOR CONTINUTED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE No. 49103.5, 49102.5 MFD. BY LITTELFUSE INK FOR IC5001 – IC5003, IC5006 AND IC5007



⚠ POWER TRANSFORMER
ATS7151 : KUXJ type
ATS7152 : KCXJ type
ATS7153 : DD, DDXJ, DDXJ/NC, DLXJ/NC types
ATS7154 : YPWXJ type

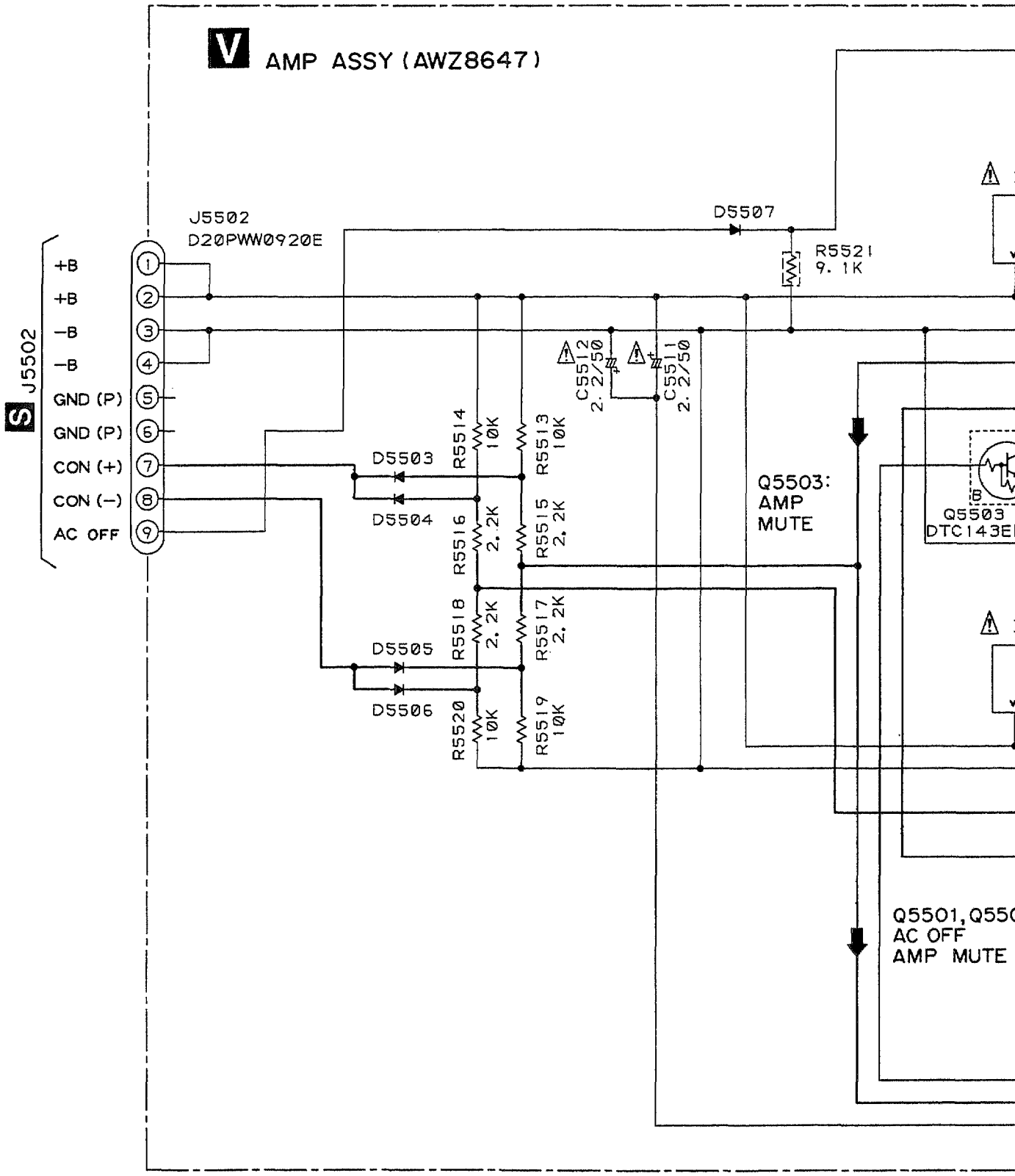
⚠ AC POWER CORD
PDG1057 : KUXJ, KCXJ types AC120V
PDG1056 : DD type
ADG1157 : DDXJ, DDXJ/NC types
PDG1058 : DLXJ/NC type
ADG1159 : YPWXJ type AC 240V
} AC110 - 127V/ 220 - 230V/ 240V

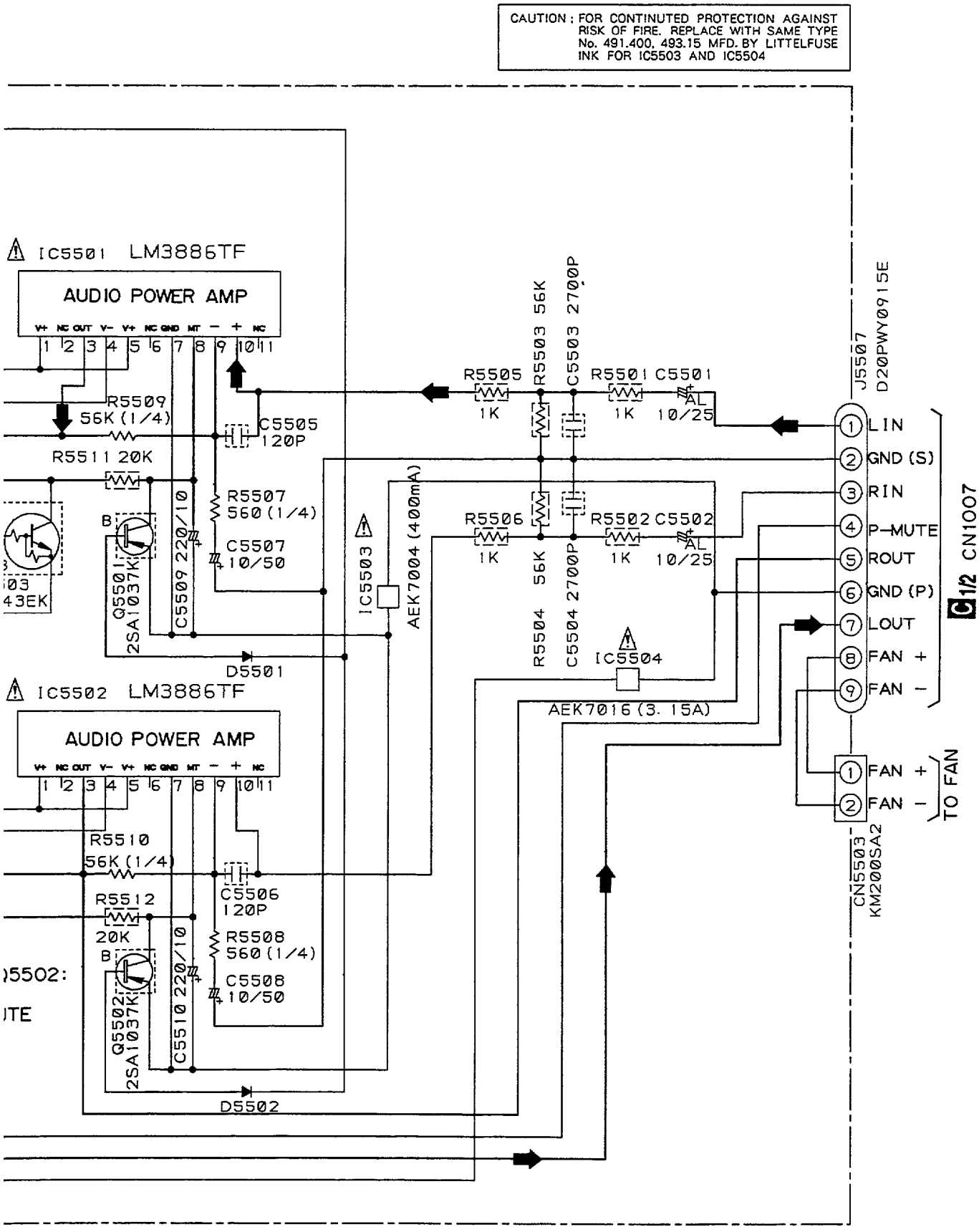
U PRIMARY ASSY
(AWZ8651 : KUXJ, KCXJ types)
(AWZ8652 : DD, DDXJ, DDXJ/NC, DLXJ/NC types)
(AWZ8653 : YPWXJ type)

● NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

3.10 AMP ASSY


AMP ASSY (AWZ8647)
J5502
D20PWW0920E
S J5502
+B
+B
−B
−B
GND (P)
GND (P)
CON (+)
CON (−)
AC OFF
D5507
R5521
9.1K
C5512
2.2/50
C5511
2.2/50
R5514
10K
R5513
10K
D5503
D5504
R5516
2.2K
R5515
2.2K
R5518
2.2K
R5517
2.2K
D5505
D5506
R5520
10K
R5519
10K
Q5503:
AMP
MUTE
Q5503
DTC143EK
Q5501,Q550
AC OFF
AMP MUTE
SIGNAL ROUTE
➡ : AUDIO SIGNAL
If the parts are not identif
the followings are used.
1SS254-T


CAUTION : FOR CONTINUTED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE No. 491.400, 493.15 MFD. BY LITTELFUSE INK FOR IC5503 AND IC5504
IC5501 LM3886TF
AUDIO POWER AMP
V+ NC OUT V- V+ NC GND MT - + NC
1 2 3 4 5 6 7 8 9 10 11
R5509 56K (1/4)
C5505 120P
R5511 20K
R5507 560 (1/4)
C5507 10/50
C5509 220/10
Q5501 2SA1037K
B
D5501
IC5502 LM3886TF
AUDIO POWER AMP
R5510 56K (1/4)
C5506 120P
R5512 20K
R5508 560 (1/4)
C5508 10/50
C5510 220/10
Q5502 2SA1037K
D5502
IC5503
AEK7004 (400mA)
IC5504
AEK7016 (3. 15A)
R5505 1K
R5503 56K
C5503 2700P
R5501 1K
C5501 AL 10/25
R5506 1K
R5504 56K
C5504 2700P
R5502 1K
C5502 AL 10/25
J5507
D20PWY0915E
1 LIN
2 GND (S)
3 RIN
4 P-MUTE
5 ROUT
6 GND (P)
7 LOUT
8 FAN +
9 FAN -
C1/2 CN1007
1 FAN +
2 FAN -
TO FAN
CN5503
KM200SA2

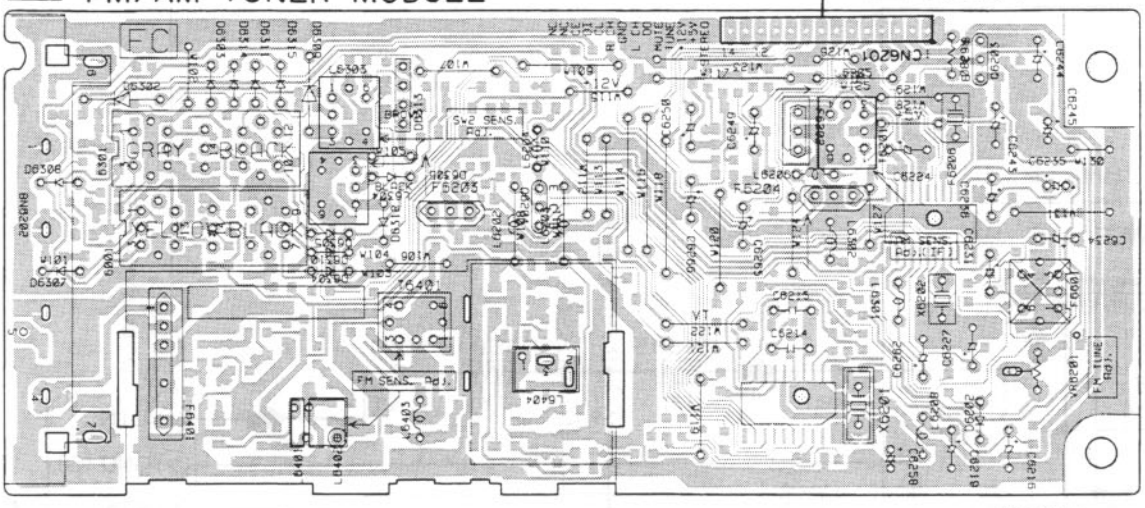
ntified.

XR-P670F
4. PCB CONNECTION DIAGRAM

4.1 FM/AM TUNER MODULE

• AXQ7061 (except DD type)

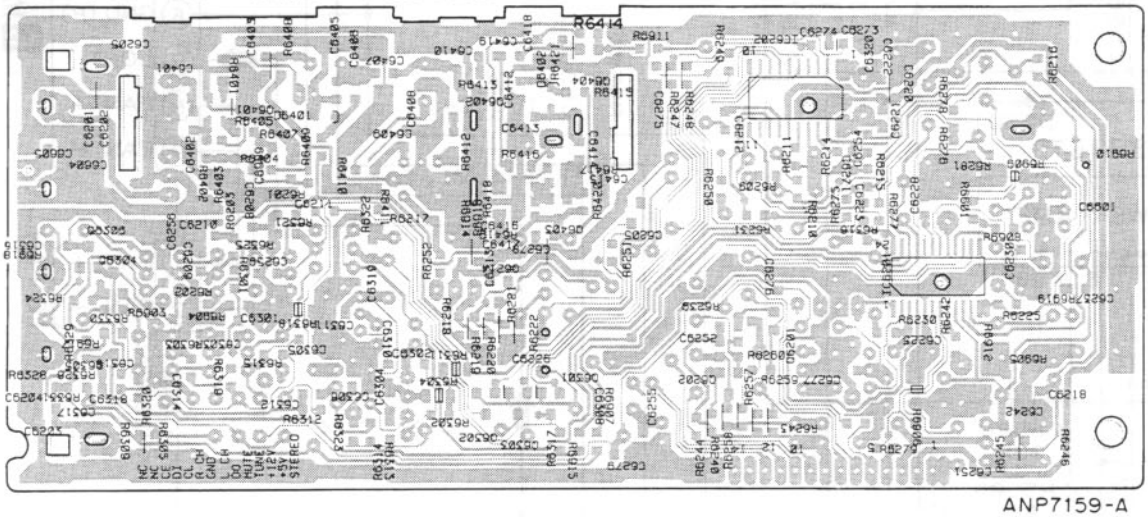
A FM/AM TUNER MODULE — B CN1004 — SIDE A



VR6201

Q6204 Q6203

A FM/AM TUNER MODULE — SIDE B

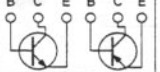


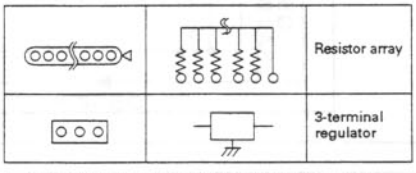
ANP7159-A

Q6306 Q6304 Q6401 Q6402 Q6403 Q6205 Q6214 Q6301 Q6202 Q6302 Q6303 IC6202 Q6201 IC6201

NOTE FOR PCB DIAGRAMS:

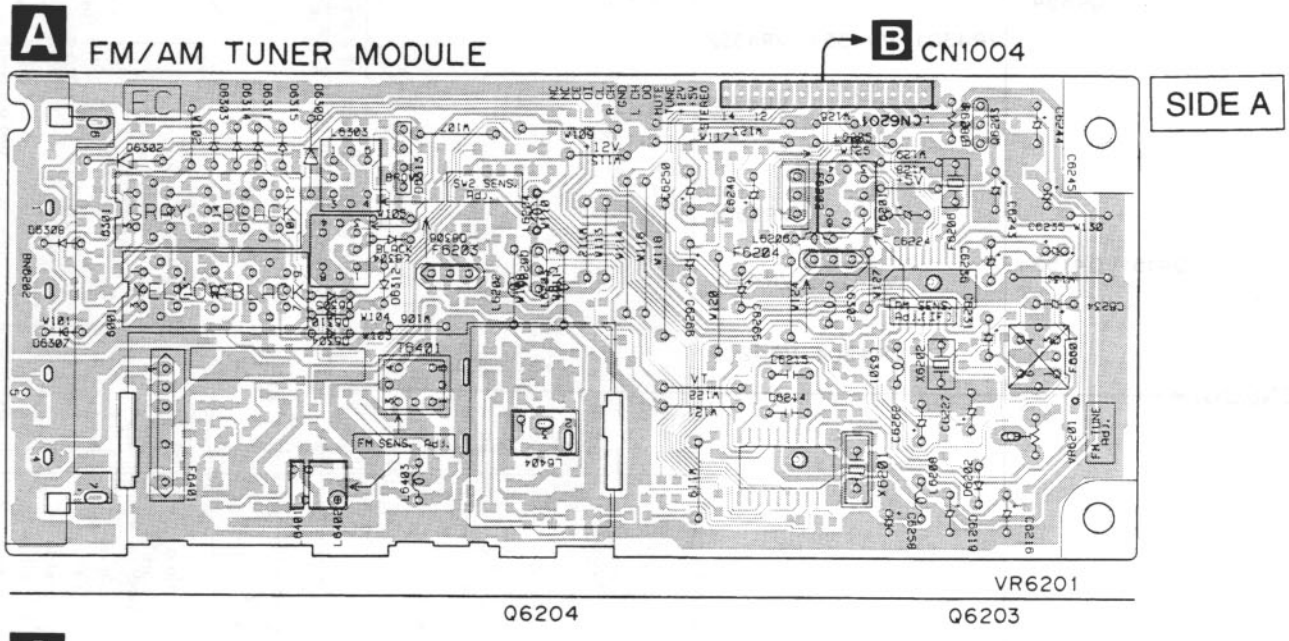
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

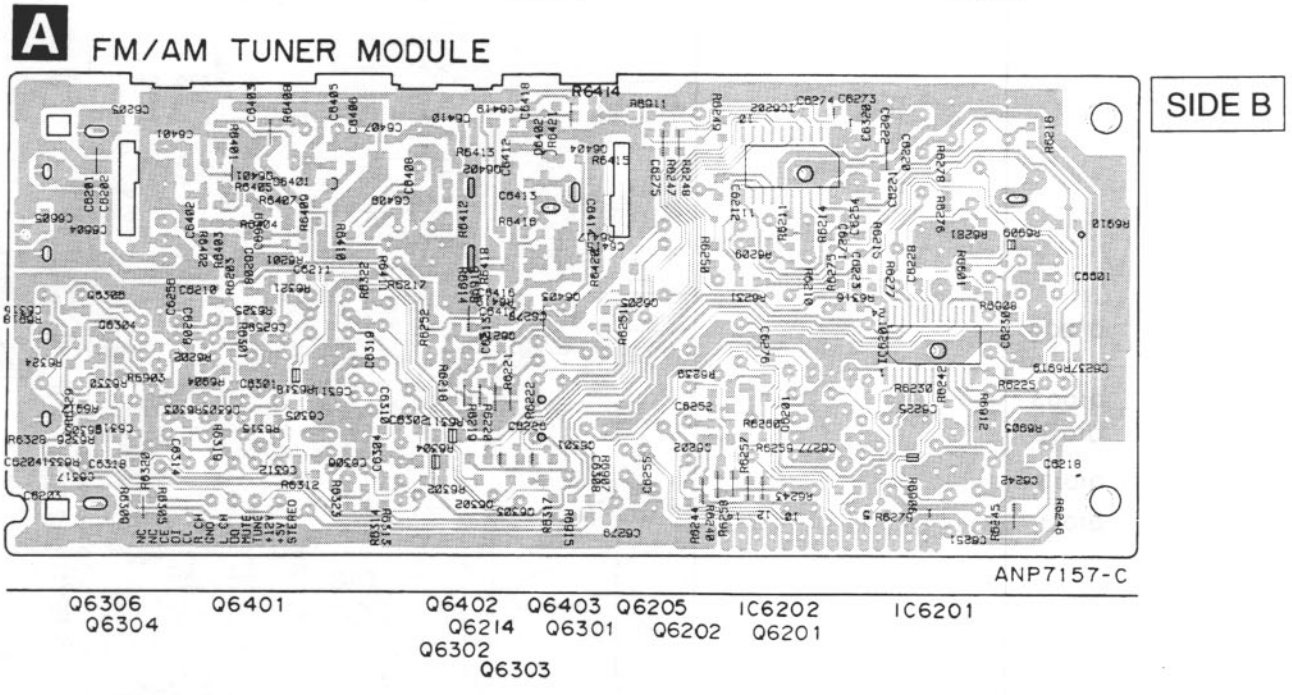
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor



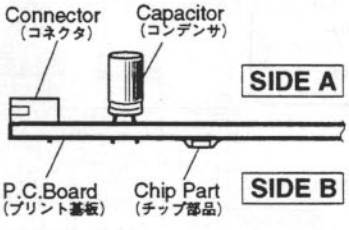
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further infromation for respective destinations, be sure to check with the schematic diagram.

• AXQ7051 (for DD type)



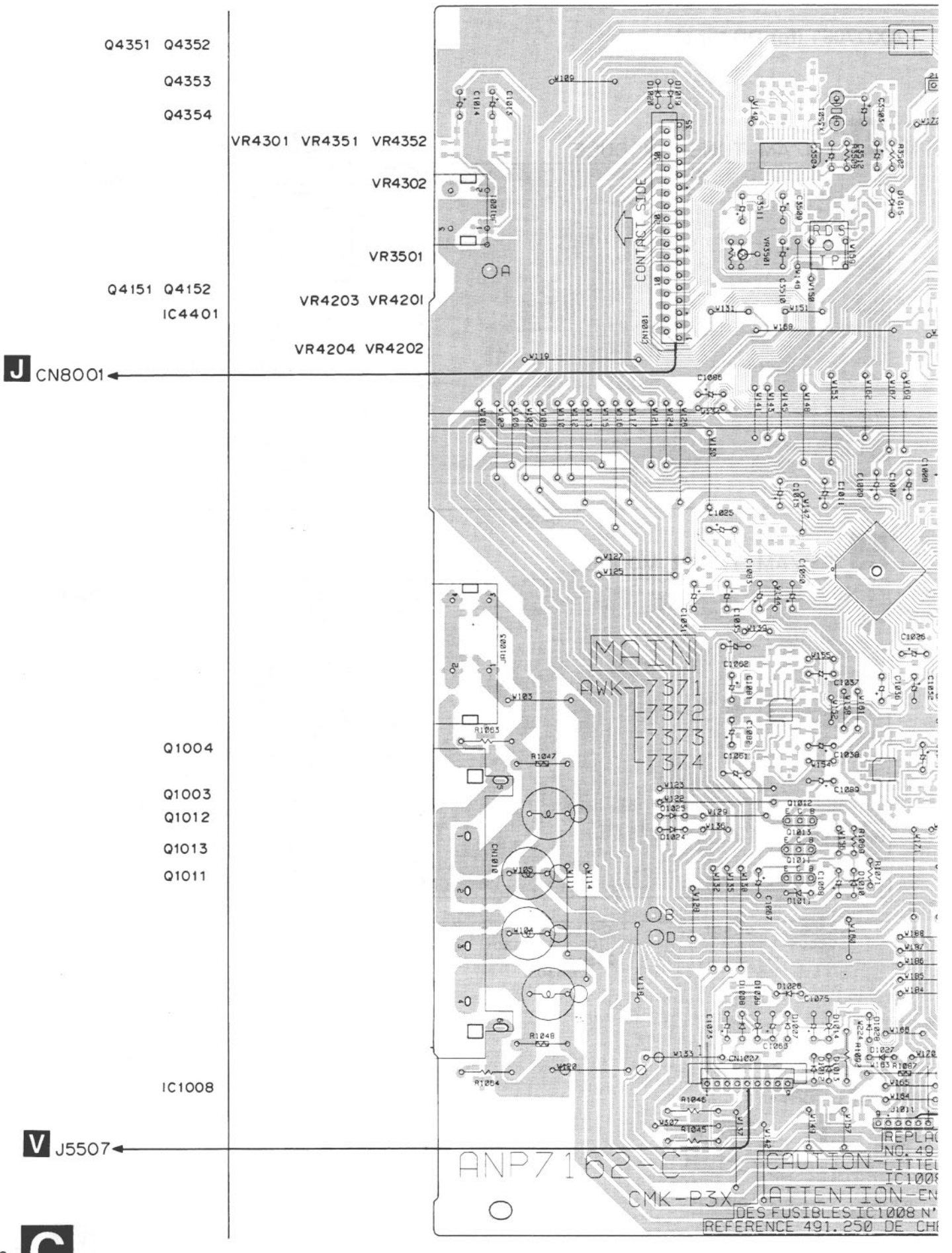


4. Viewpoint of PCB diagrams

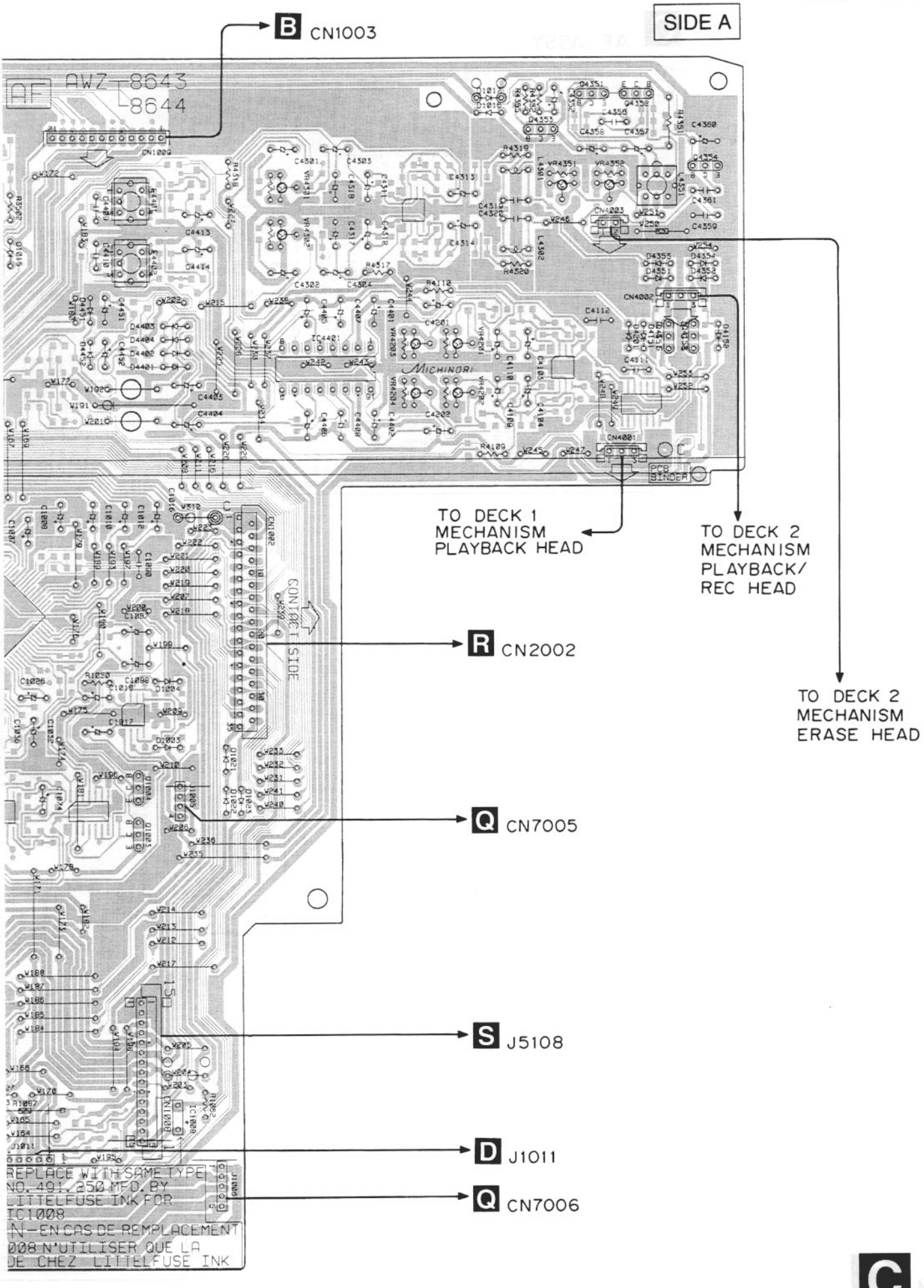


4.2 AF ASSY

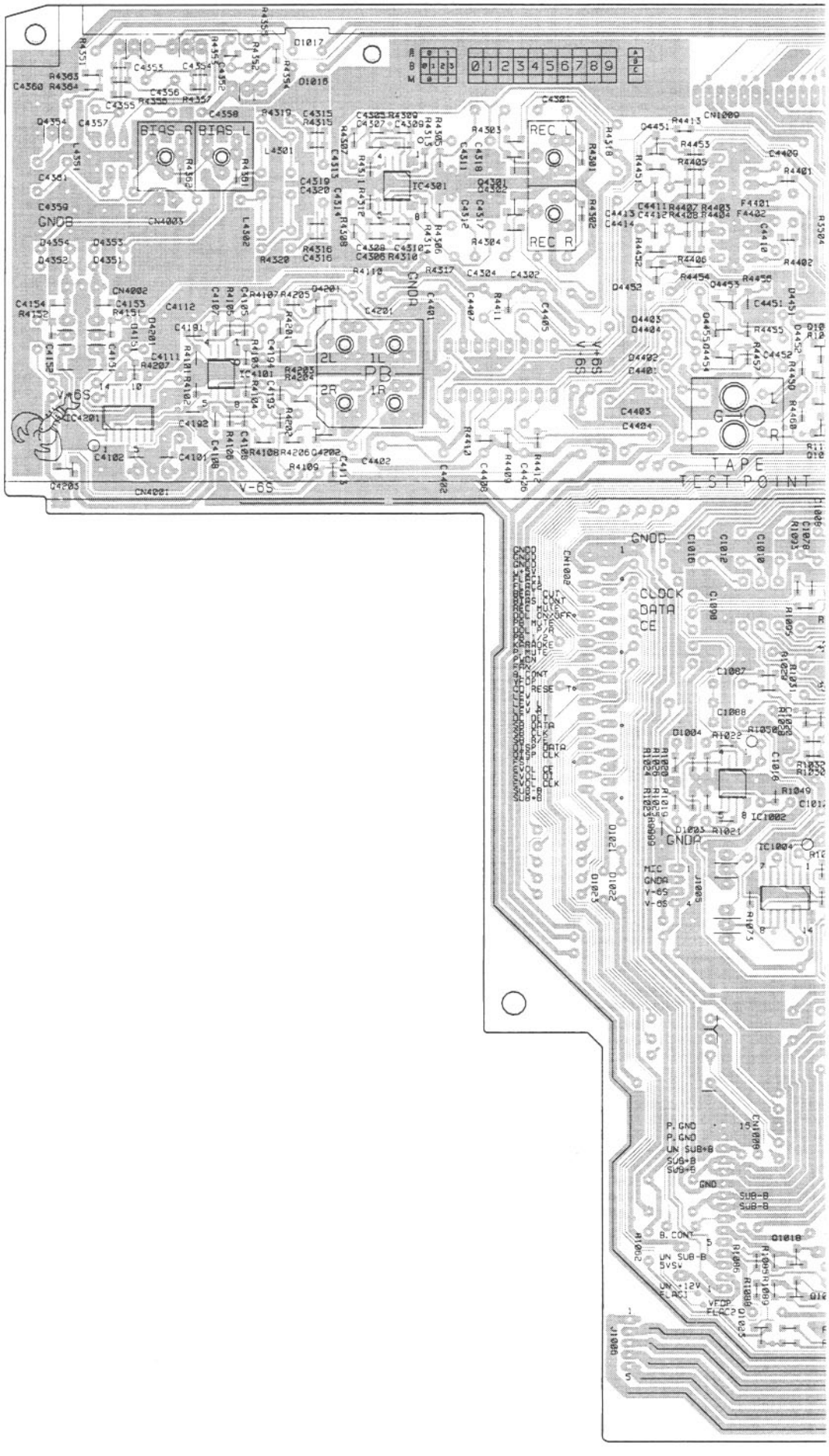
C AF ASSY



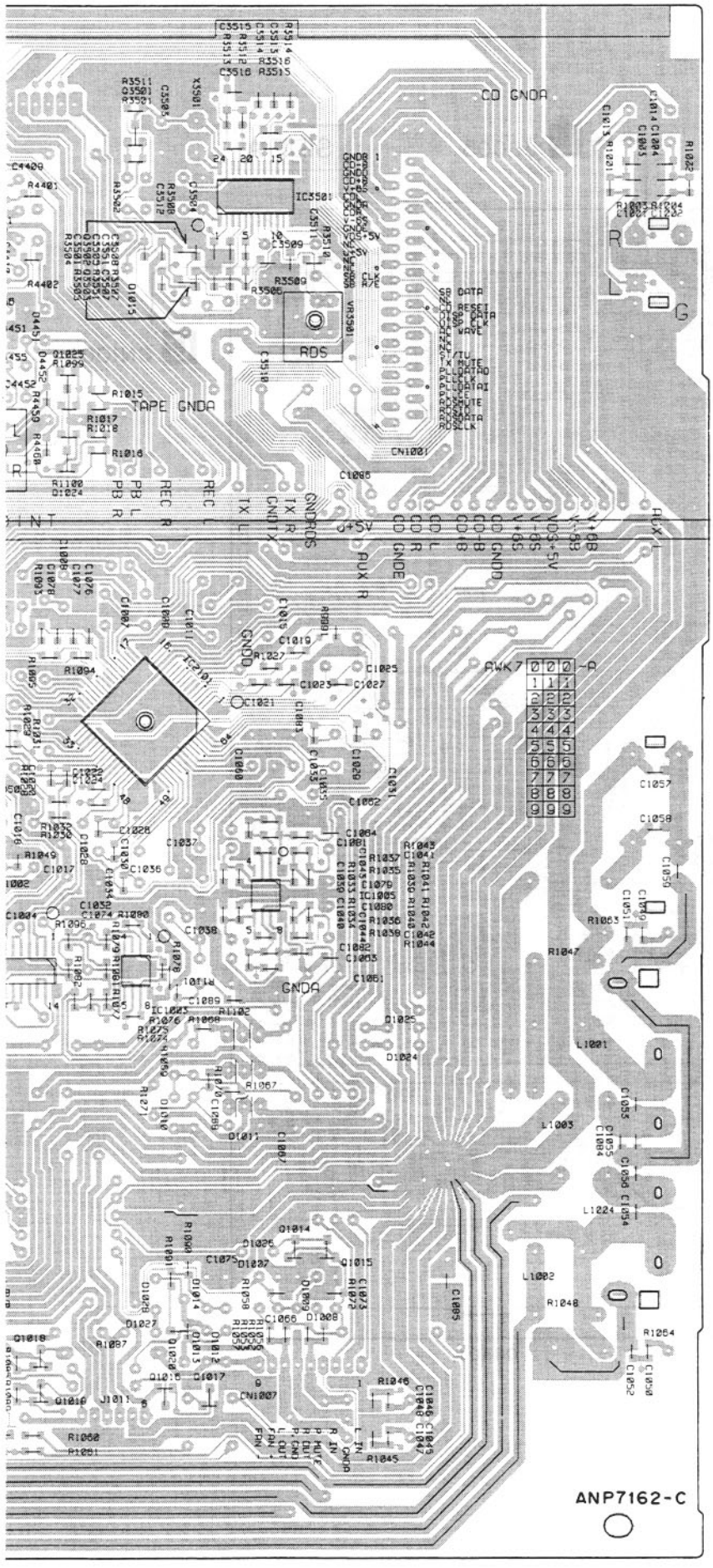
SIDE A


B CN1003
AWZ-8643
-8644
TO DECK 1
MECHANISM
PLAYBACK HEAD
TO DECK 2
MECHANISM
PLAYBACK/
REC HEAD
R CN2002
TO DECK 2
MECHANISM
ERASE HEAD
Q CN7005
S J5108
D J1011
Q CN7006
CONTACT SIDE
MICHINORI
REPLACE WITH SAME TYPE
NO. 491.250 MFD. BY
LITTELFUSE INK FOR
IC1008
N-EN CAS DE REMPLACEMENT
008 N'UTILISER QUE LA
DE CHEZ LITTELFUSE INK

C AF ASSY


BIAS R
BIAS L
REC L
REC R
PB
TAPE
TEST POINT
GNDA
V-6S
CLOCK
DATA
CE
P.GND
SUB-B

SIDE B



Q3501

Q4451

Q4301 IC3501
Q4302 IC4301

Q3502

Q4452 Q3503
Q4453

Q4455 Q1025
Q4454

IC4101

IC4201

Q1024

IC2101

IC1002

IC1005

IC1004
IC1003

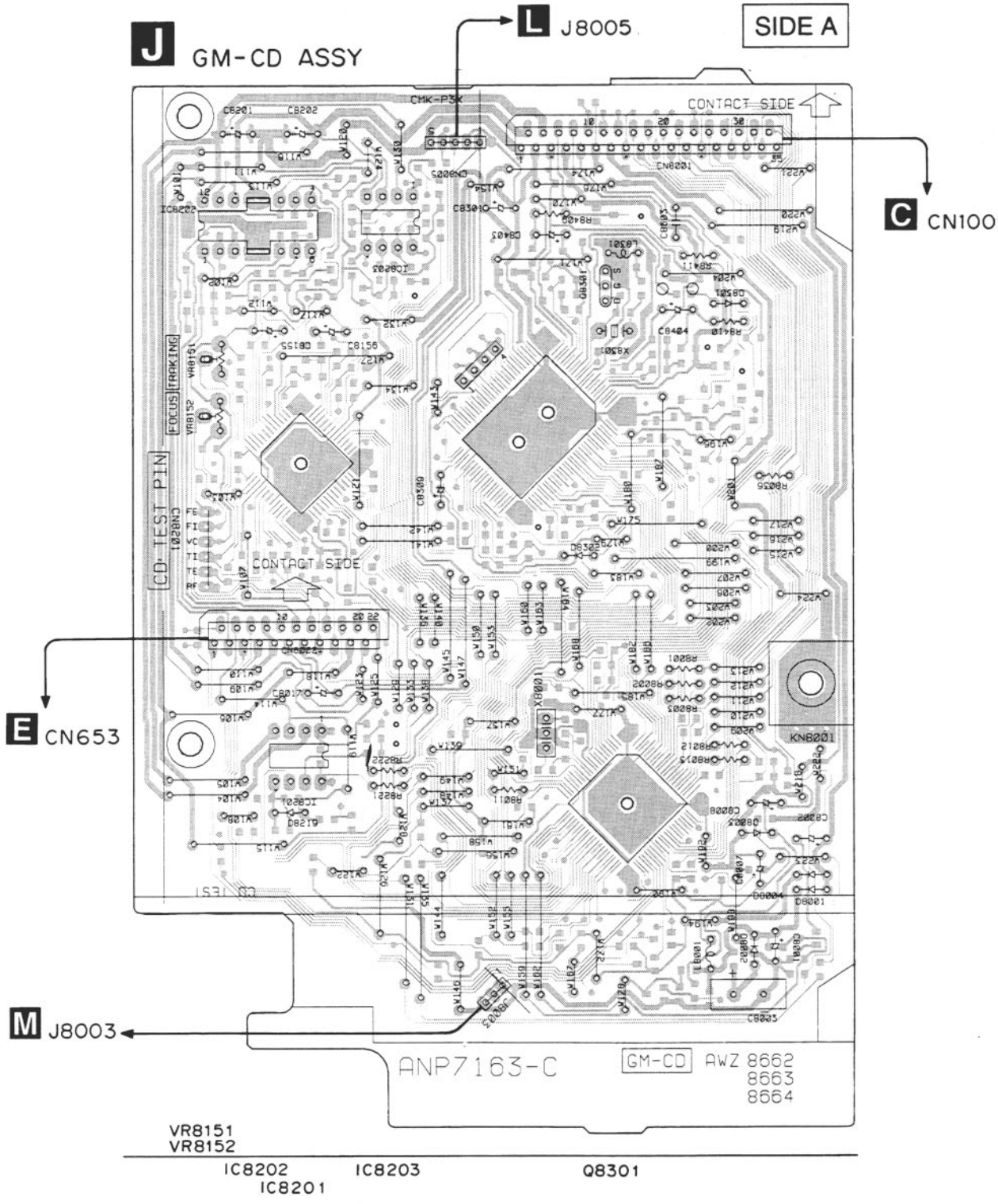
Q1014 Q1015

Q1020
Q1018

Q1019 Q1016 Q1017

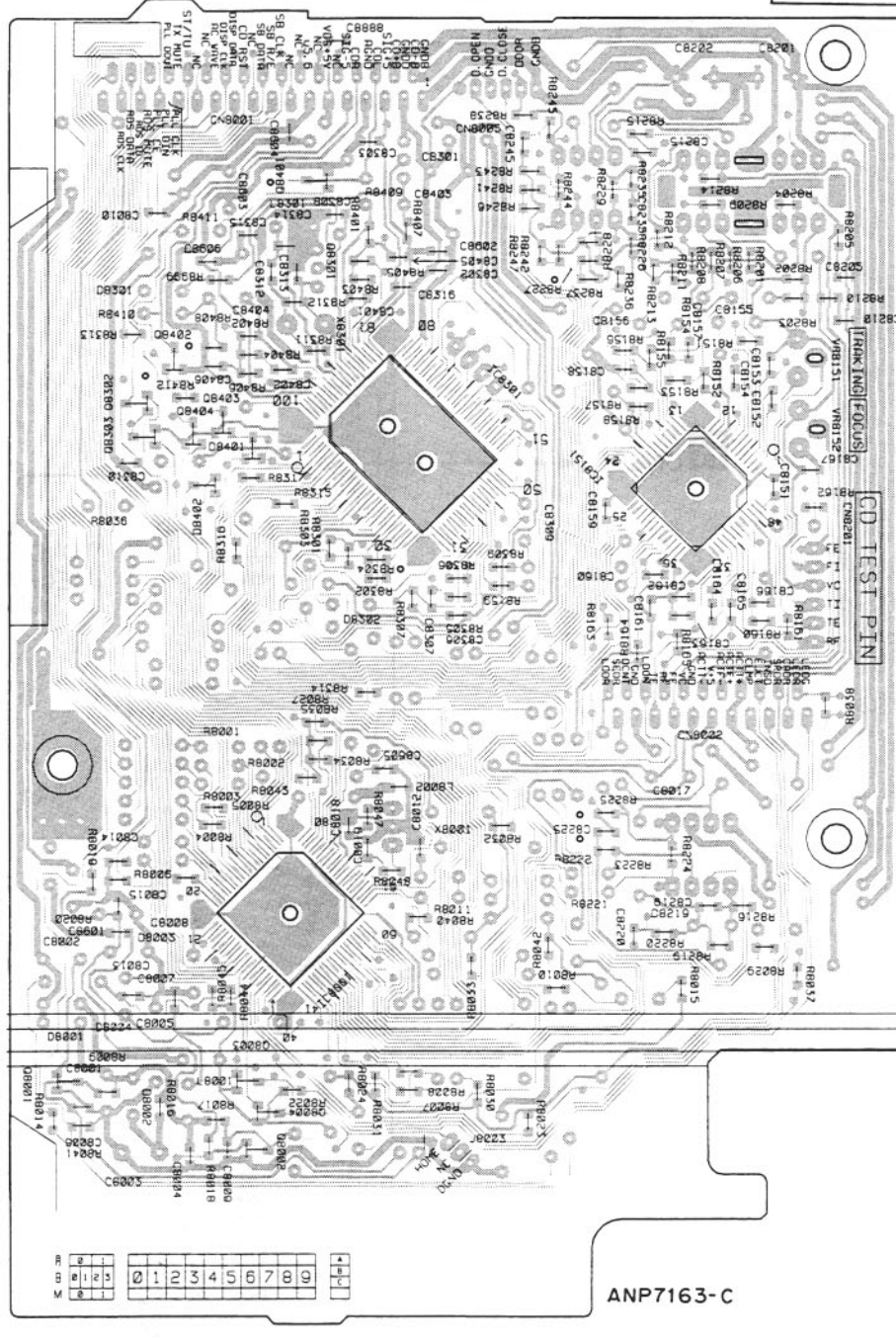
Q1023

4.3 GM-CD ASSY


J GM-CD ASSY
L J8005
SIDE A
C CN1001
E CN653
M J8003
CONTACT SIDE
CD TEST PIN
FOCUS
TRAKING
ANP7163-C
GM-CD AWZ 8662
8663
8664
VR8151
VR8152
IC8202
IC8203
Q8301
IC8201

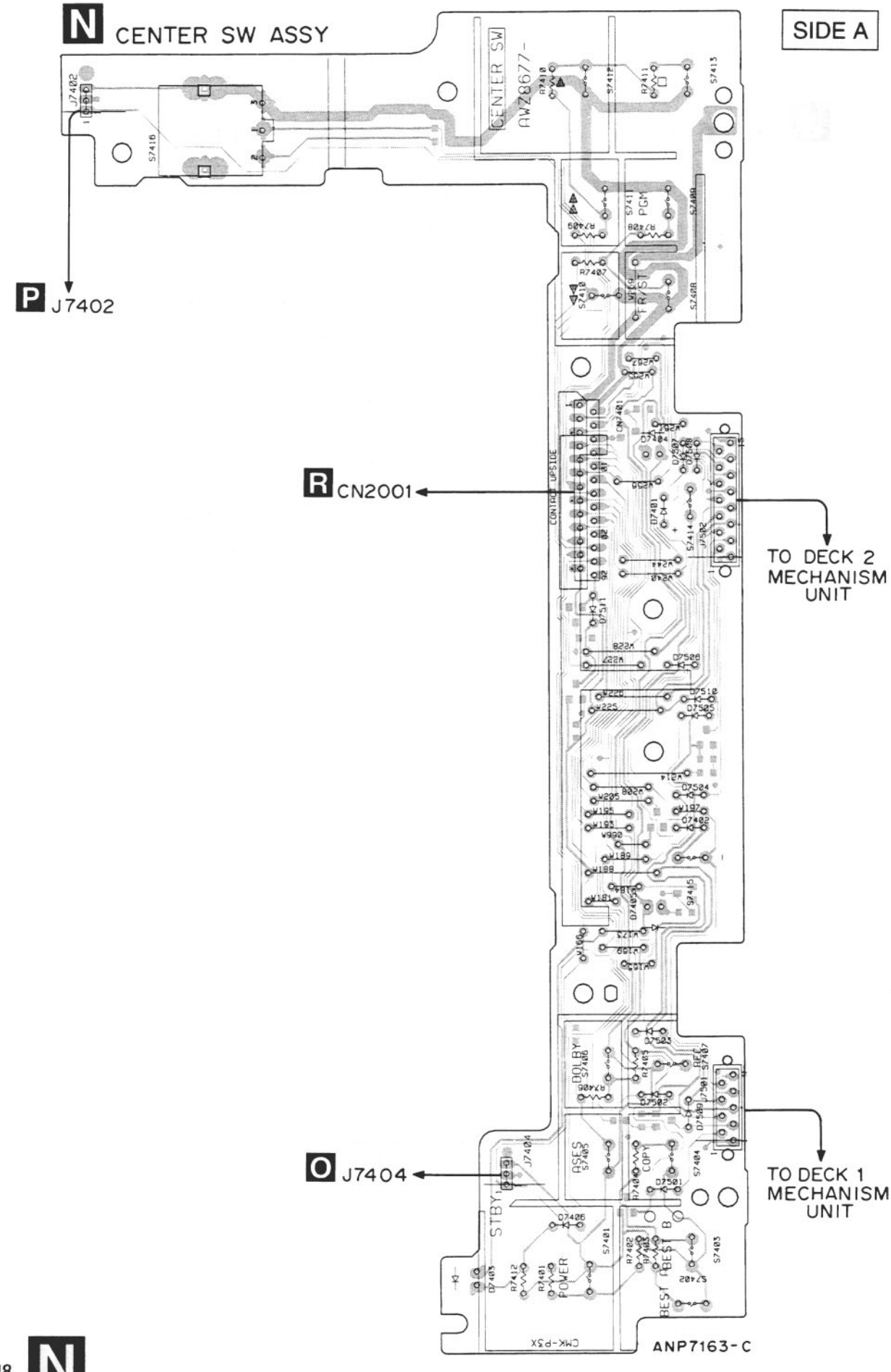
J GM-CD ASSY

SIDE B



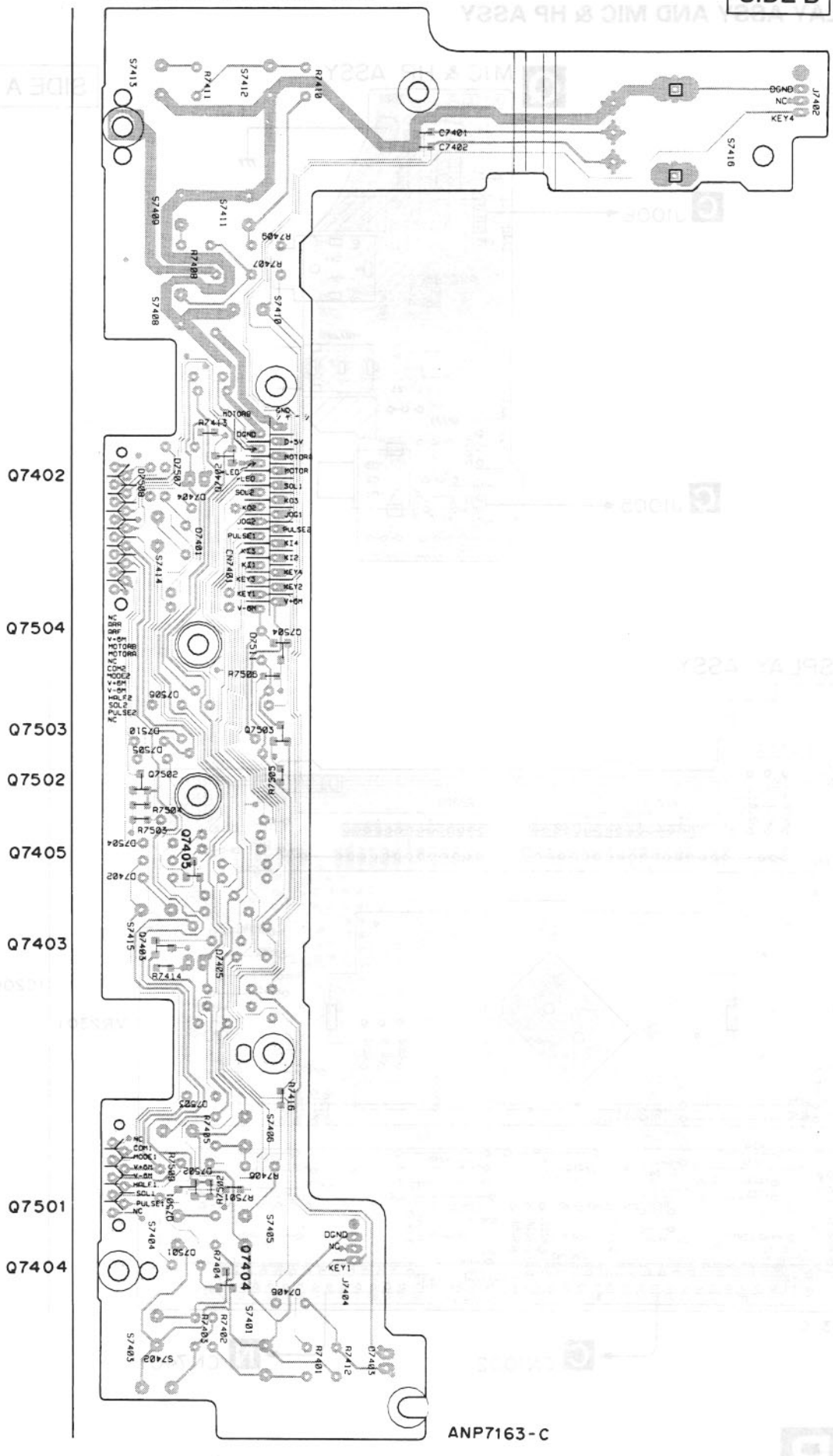
Q8001 Q8402 Q8401 IC8301 IC8151
Q8302 Q8403 IC8001
Q8303 Q8404
Q8003
Q8004
Q8002

4.4 CENTER SW ASSY

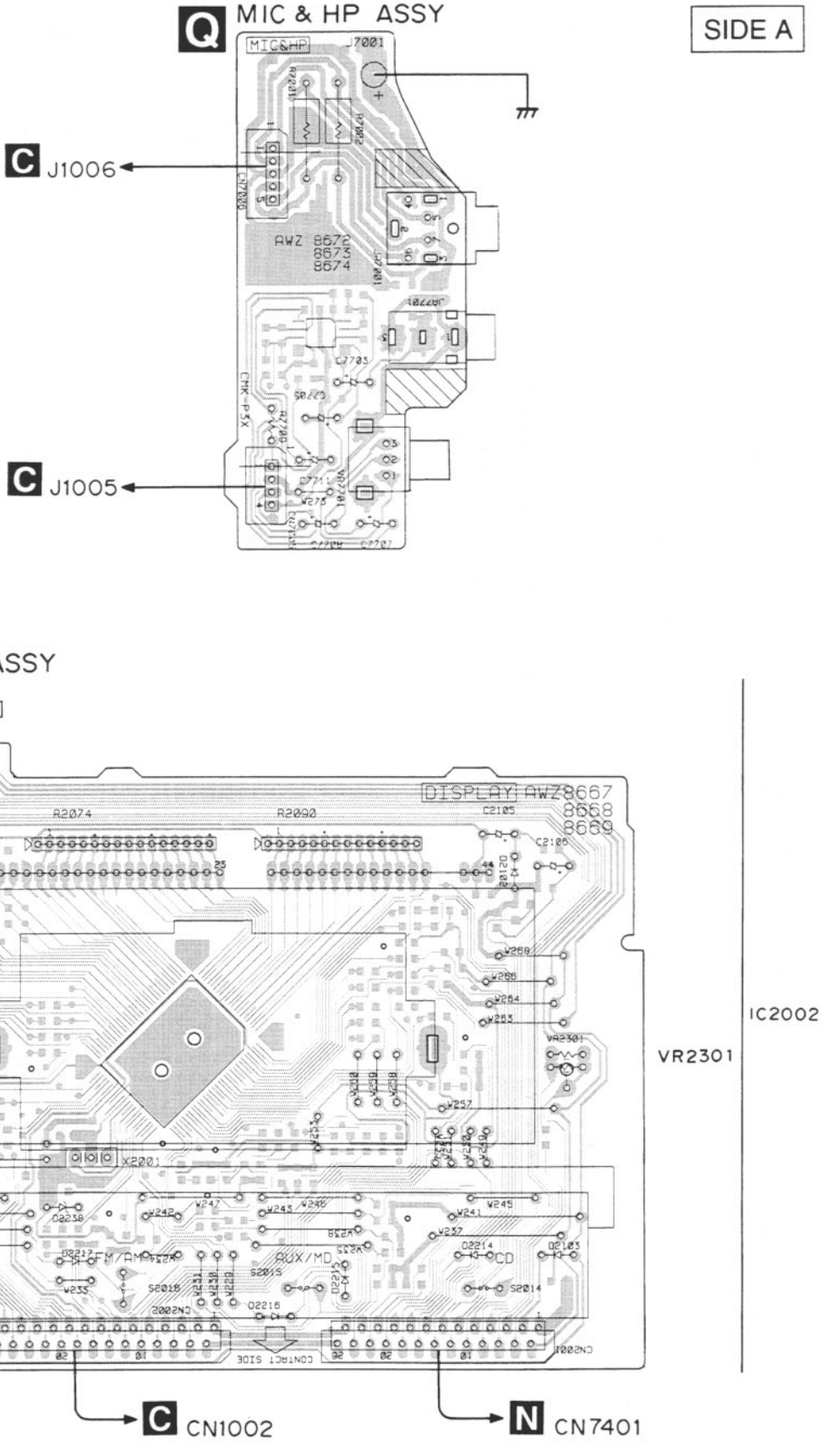


N CENTER SW ASSY

SIDE B

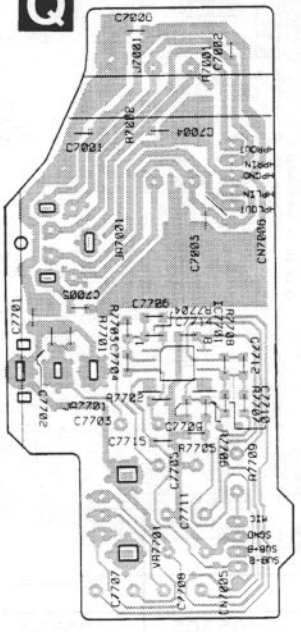


4.5 DISPLAY ASSY AND MIC & HP ASSY



Q MIC & HP ASSY

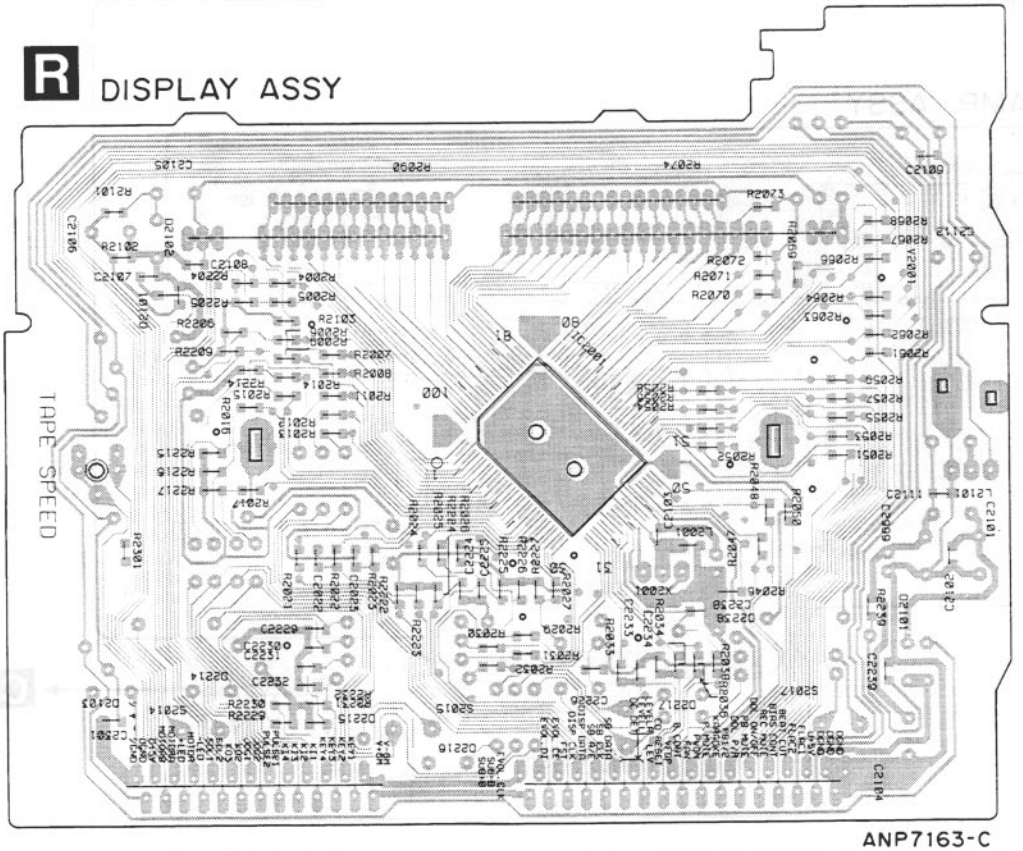
SIDE B



R DISPLAY ASSY

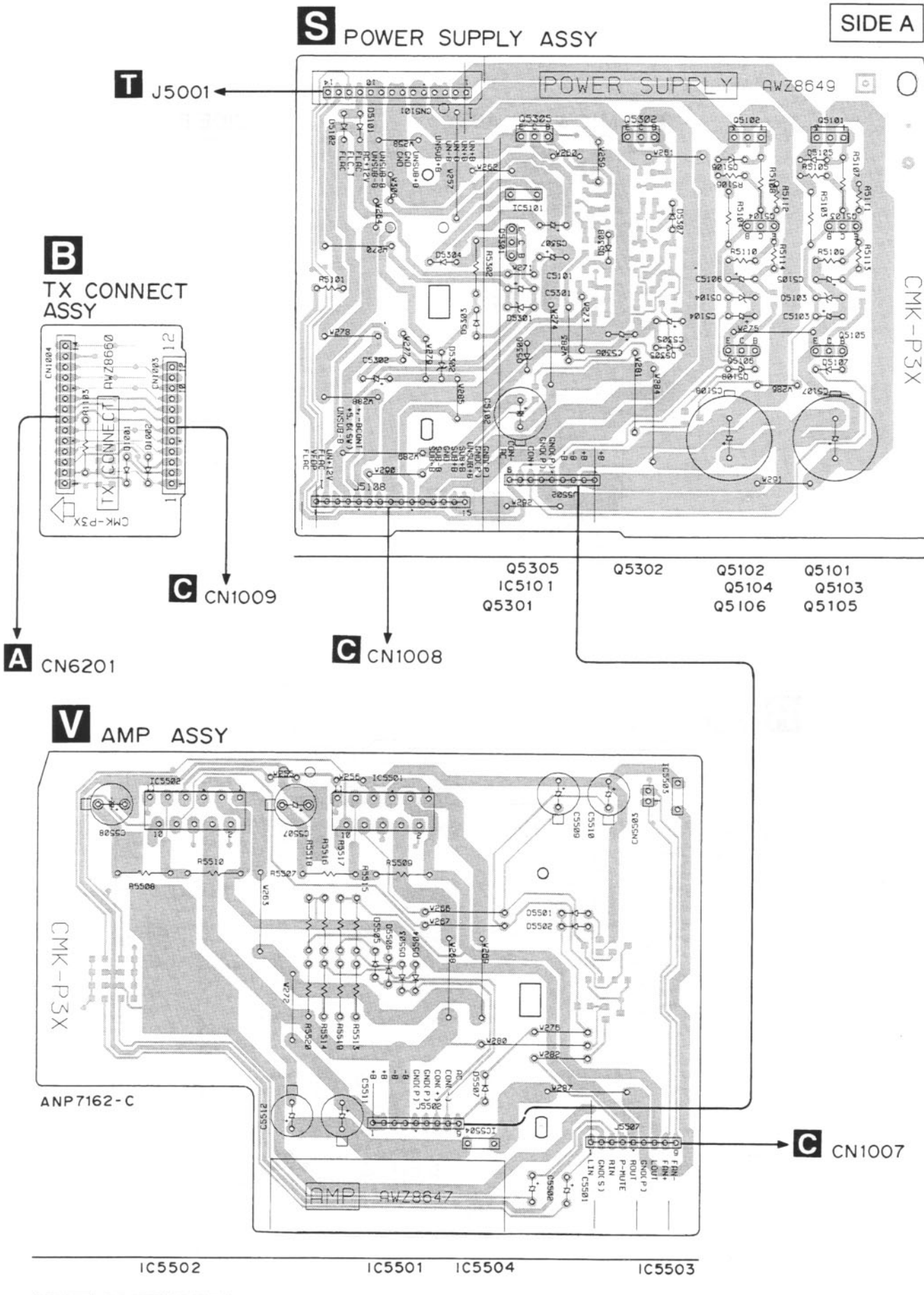
Q2101

IC2001



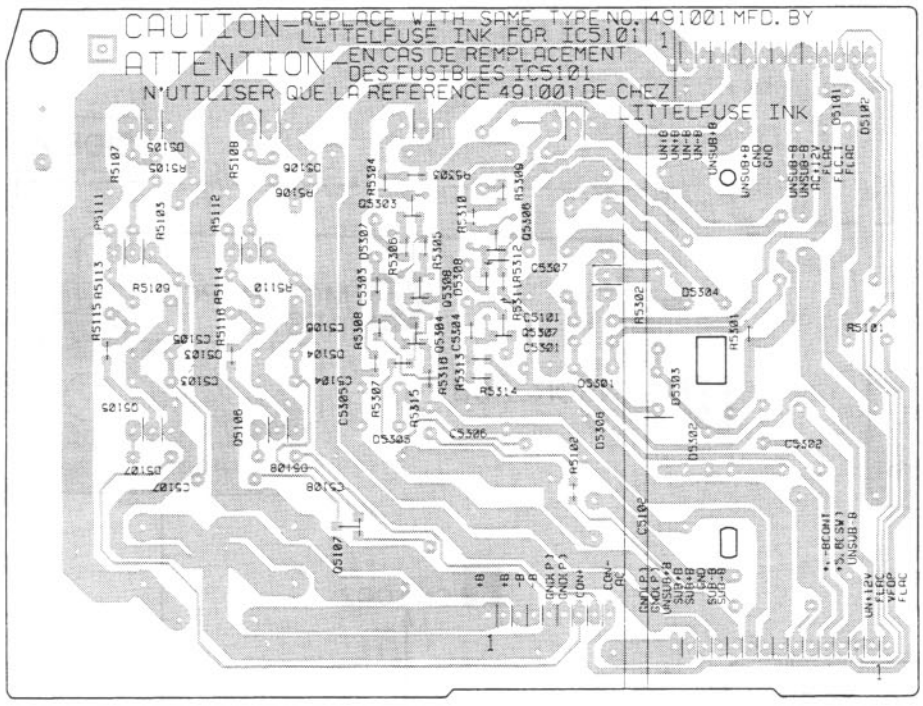
ANP7163-C

4.6 TX CONNECT ASSY, POWER SUPPLY AND AMP ASSY



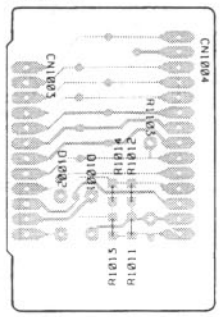
S POWER SUPPLY ASSY

SIDE B

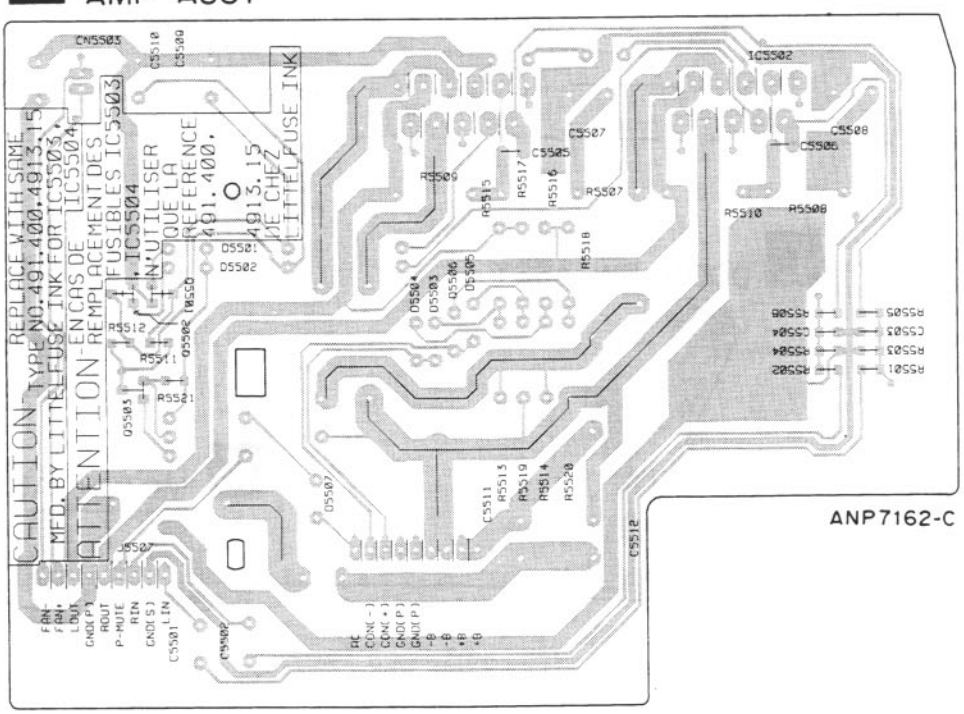

CAUTION-REPLACE WITH SAME TYPE NO.491001 MFD. BY LITTELFUSE INK FOR IC5101
ATTENTION-EN CAS DE REMPLACEMENT DES FUSIBLES IC5101 N'UTILISER QUE LA REFERENCE 491001 DE CHEZ LITTELFUSE INK

Q5303 Q5306
Q5107 Q5308 Q5307
Q5304

B TX CONNECT ASSY



V AMP ASSY

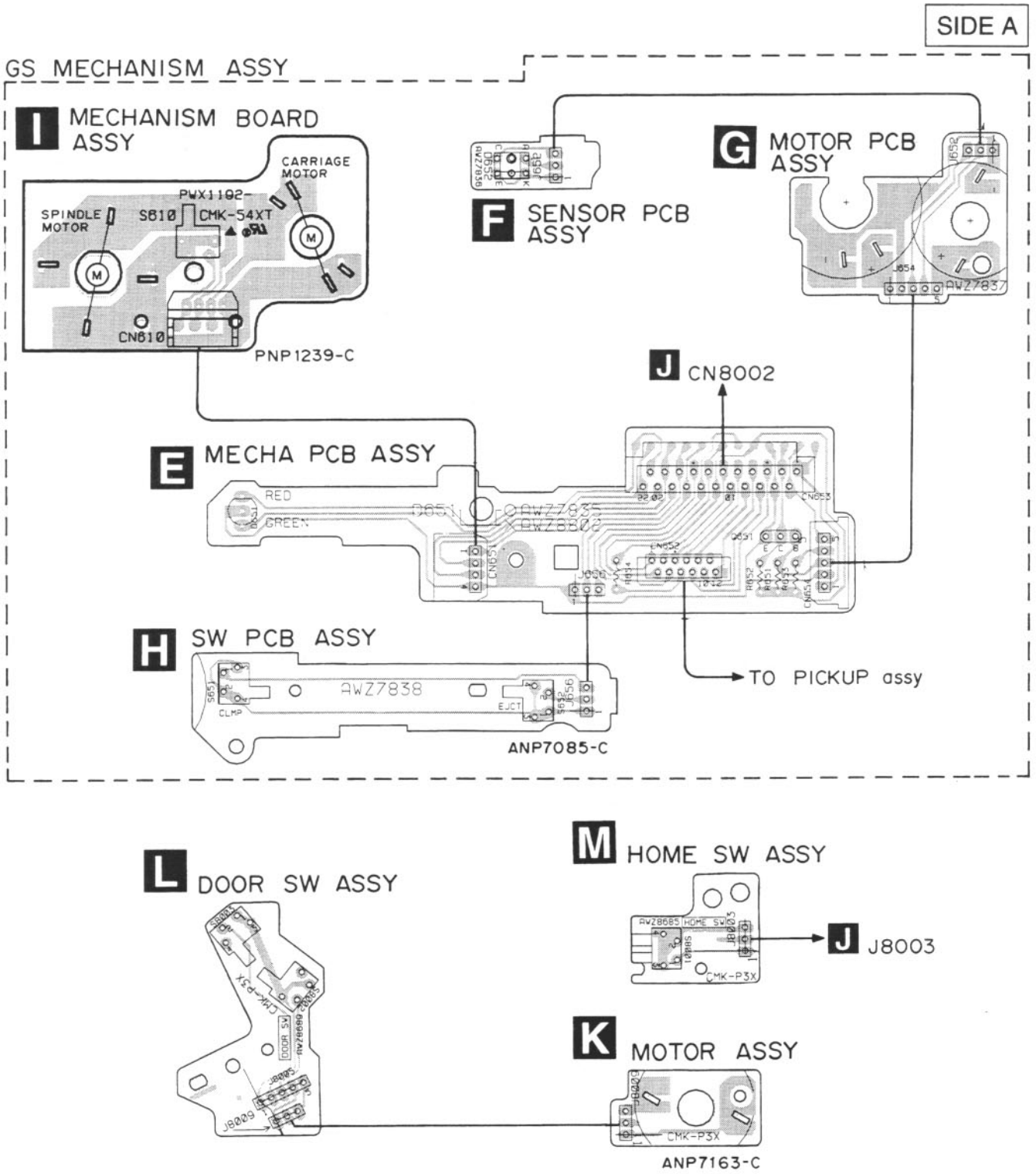

CAUTION-REPLACE WITH SAME TYPE NO.491.400.4913.15 MFD. BY LITTELFUSE INK FOR IC5503, IC5504
ATTENTION-EN CAS DE REMPLACEMENT DES FUSIBLES IC5503, IC5504 N'UTILISER QUE LA REFERENCE 491.400.4913.15 DE CHEZ LITTELFUSE INK

ANP7162-C

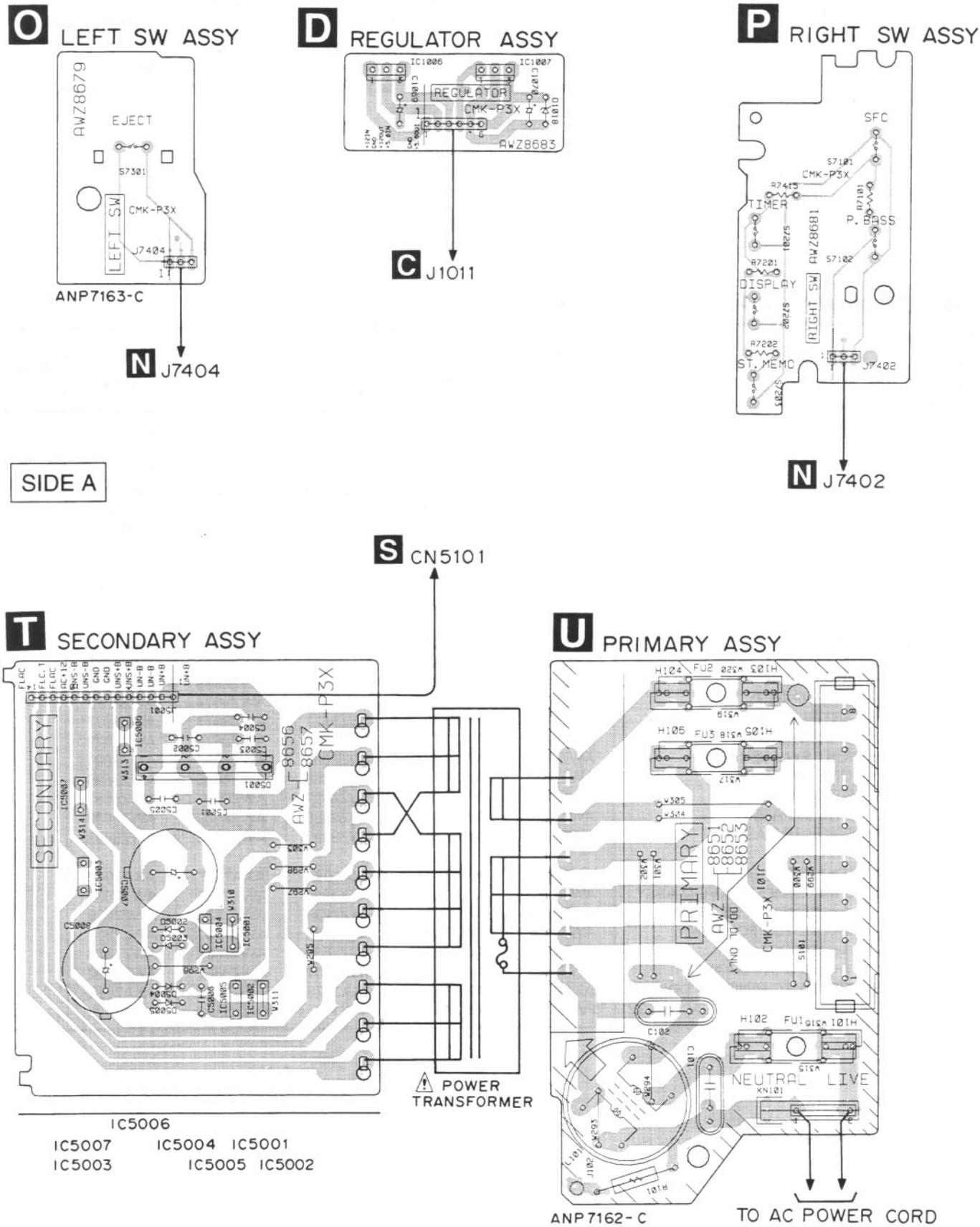
Q5503 Q5501
Q5502

IC5502

4.7 GS MECHANISM ASSY, MOTOR ASSY, DOOR SW ASSY AND HOME SW ASSY



4.8 REGULATOR ASSY, SECONDARY ASSY, PRIMARY ASSY, LEFT SW ASSY AND RIGHT SW ASSY



5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47K ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47 kΩ → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62 kΩ → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	PCB Assemblies	Part No.					Remarks
		KUXJ KCXJ	DD	DDXJ DDXJ/NC	DLXJ/NC	YPWXJ	
	FM/AM TUNER MODULE	AXQ7061	AXQ7051	AXQ7061	AXQ7061	AXQ7061	
NSP	MAIN ASSY	AWK7371	AWK7372	AWK7372	AWK7374	AWK7373	
	├ AF ASSY	AWZ8643	AWZ8644	AWZ8644	AWZ8644	AWZ8644	
	├ AMP ASSY	AWZ8647	AWZ8647	AWZ8647	AWZ8647	AWZ8647	
	├ POWER SUPPLY ASSY	AWZ8649	AWZ8649	AWZ8649	AWZ8649	AWZ8649	
	├ PRIMARY ASSY	AWZ8651	AWZ8652	AWZ8652	AWZ8652	AWZ8653	
	├ SECONDARY ASSY	AWZ8656	AWZ8657	AWZ8657	AWZ8657	AWZ8657	
NSP	├ TX CONNECT ASSY	AWZ8660	AWZ8660	AWZ8660	AWZ8660	AWZ8660	
	└ REGULATOR ASSY	AWZ8683	AWZ8683	AWZ8683	AWZ8683	AWZ8683	
NSP	COMPLEX ASSY	AWM7287	AWM7288	AWM7288	AWM7290	AWM7289	
	├ GM-CD ASSY	AWZ8662	AWZ8663	AWZ8663	AWZ8664	AWZ8663	
	├ DISPLAY ASSY	AWZ8667	AWZ8668	AWZ8668	AWZ8669	AWZ8668	
	├ MIC & HP ASSY	AWZ8672	AWZ8673	AWZ8673	AWZ8674	AWZ8673	
	├ CENTER SW ASSY	AWZ8677	AWZ8677	AWZ8677	AWZ8677	AWZ8677	
NSP	├ LEFT SW ASSY	AWZ8679	AWZ8679	AWZ8679	AWZ8679	AWZ8679	
NSP	├ RIGHT SW ASSY	AWZ8681	AWZ8681	AWZ8681	AWZ8681	AWZ8681	
NSP	├ HOME SW ASSY	AWZ8685	AWZ8685	AWZ8685	AWZ8685	AWZ8685	
NSP	├ MOTOR ASSY	AWZ8687	AWZ8687	AWZ8687	AWZ8687	AWZ8687	
NSP	├ DOOR SW ASSY	AWZ8689	AWZ8689	AWZ8689	AWZ8689	AWZ8689	
NSP	└ PROTECTOR ASSY	AWZ8803	AWZ8803	AWZ8803	AWZ8803	AWZ8803	
NSP	GS MECHANISM ASSY	AXA7047	AXA7047	AXA7047	AXA7047	AXA7047	
NSP	│ LO MECHANISM BOARD ASSY	AWX7035	AWX7035	AWX7035	AWX7035	AWX7035	
NSP	│ ├ SENSOR PCB ASSY	AWZ7836	AWZ7836	AWZ7836	AWZ7836	AWZ7836	
NSP	│ ├ MOTOR PCB ASSY	AWZ7837	AWZ7837	AWZ7837	AWZ7837	AWZ7837	
NSP	│ ├ SW PCB ASSY	AWZ7838	AWZ7838	AWZ7838	AWZ7838	AWZ7838	
NSP	│ └ MECHA PCB ASSY	AWZ8802	AWZ8802	AWZ8802	AWZ8802	AWZ8802	
NSP	└ SERVO MECHANISM ASSY GM	AXA7028	AXA7028	AXA7028	AXA7028	AXA7028	
	└ MECHANISM BOARD ASSY	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	

■ CONTRAST OF PCB ASSEMBLIES

A FM/AM TUNER MODULE

AXQ7051 and AXQ7061 have the same construction except for the following.

Mark	Srmbol & Description	Part No.		Remarks
		AXQ7061	AXQ7051	
	BN6202 TERMINAL 4-P	AKE7025	AKE7028	

C AF ASSY

AWZ8644 and AWZ8643 have the same construction except for the following.

Mark	Srmbol & Description	Part No.		Remarks
		AWZ8643	AWZ8644	
	R9999	RS1/10S0R0J	Not used	

U PRIMARY ASSY

AWZ8652, AWZ8653 and AWZ8651 have the same construction except for the following.

Mark	Srmbol & Description	Part No.			Remarks
		AWZ8651	AWZ8652	AWZ8653	
⚠	S101	Not used	AKX7006	Not used	
⚠	R101 (2.2M, 1/2W)	ACN-208	Not used	Not used	
	H101, H102 FUSE CLIP	AKR1004	Not used	Not used	
	H103, H104 FUSE CLIP	Not used	AKR1004	AKR1004	
	H105, H106 FUSE CLIP	Not used	AKR1004	Not used	

T SECONDARY ASSY

AWZ8657 and AWZ8656 have the same construction except for the following.

Mark	Srmbol & Description	Part No.		Remarks
		AWZ8656	AWZ8657	
⚠	IC5001, IC5002	Not used	AEK7017	
⚠	IC5006, IC5007	AEK7017	Not used	

J GM-CD ASSY

AWZ8663, AWZ8664 and AWZ8662 have the same construction except for the following.

Mark	Srmbol & Description	Part No.			Remarks
		AWZ8662	AWZ8663	AWZ8664	
	R8015	Not used	RS1/10S682J	RS1/10S682J	

R DISPLAY ASSY

Although AWZ8667, AWZ8668 and AWZ8669 are different in part number, they consist of the same components.

Q MIC & HP ASSY

AWZ8673, AWZ8674 and AWZ8672 have the same construction except for the following.

Mark	Srmbol & Description	Part No.			Remarks
		AWZ8672	AWZ8673	AWZ8674	
	IC7701	Not used	NJM4558M-D	NJM4558M-D	
	C7701	Not used	CKSQYF224Z25	CKSQYF224Z25	
	C7702	Not used	CKSQYB472K50	CKSQYB472K50	
	C7703, C7705, C7707, C7708	Not used	CEAS1ROM50	CEAS1ROM50	
	C7706	Not used	CCSQCH221J50	CCSQCH221J50	
	C7709	Not used	CKSQYB222K50	CKSQYB222K50	
	C7711	Not used	CEAS6R8M50	CEAS6R8M50	
	C7712	Not used	CKSQYB562K50	CKSQYB562K50	
	C7714, C7715	Not used	CKSQYF473Z50	CKSQYF473Z50	
	R7701, R7702, R7708	Not used	RS1/10S103J	RS1/10S103J	
	R7703	Not used	RS1/10S682J	RS1/10S682J	
	R7704	Not used	RS1/10S274J	RS1/10S274J	
	R7705	Not used	RS/110S473J	RS/110S473J	
	R7706	Not used	RS1/10S472J	RS1/10S472J	
	R7707	Not used	RS1/10S102J	RS1/10S102J	
	R7709	Not used	RD1/4PU100J	RD1/4PU100J	
	VR7701 (10K)	Not used	ACS1028	ACS1028	
	CN7005 3P JUMPER CONNECTOR	Not used	52151-0410	52151-0410	
	JA7701 JACK	Not used	RKN1004	RKN1004	

■ PARTS LIST FOR KUXJ

Mark	No.	Description	Parts No.

A FM/AM TUNER MODULE

SEMICONDUCTORS

IC6201	LA1832ML
IC6202	LC72131MD
Q6402	2SC2223
Q6203	2SC2705
Q6201, Q6202	2SC2712
Q6214, Q6403	2SC2714
Q6404	2SK302
Q6401	3SK194
Q6204	DTA124ES
Q6205	DTC124EK
D6202	1SS254
D6401, D6402	1T363

COILS AND FILTERS

L6404	ATC1003
L6401	ATC1020
L6402	ATC1021
F6204	ATF-107
F6203	ATF-119
F6401	ATF-155
F6206	ATF7008
F6202	ATF7011
L6206, L6208, L6403	LAU2R2J

Mark	No.	Description	Parts No.

TRANSFORMERS

T6201	ATB7008
T6401	ATE7002

CAPACITORS

C6208	CCSQCH100D50
C6212, C6274, C6275, C6408	CCSQCH101J50
C6221, C6222, C6416	CCSQCH150J50
C6271	CCSQCH200J50
C6415	CCSQCH330J50
C6401, C6419	CCSQCH5R0C50
C6407	CCSQCK1R0C50
C6410	CCSQCK2R0C50
C6413	CCSQPH220J50
C6414	CCSQPH8R0D50
C6405	CCSQTH180J50
C6234, C6235	CEAL1R0M50
C6245	CEAL470M16
C6224	CEAS100M50
C6243	CEAS101M16
C6231	CEAS1R0M50
C6227	CEAS220M16
C6236	CEAS2R2M50
C6216	CEAS330M16
C6262	CEAS3R3M50
C6219	CEAS470M10
C6244	CEAS470M16

Mark	No.	Description	Parts No.
	C6249, C6250, C6265, C6266		CEAS4R7M50
	C6258		CEJA470M16
	C6215		CFTXA103J50
	C6214		CFTXA224J50
	C6211, C6254, C6403, C6406, C6412		CKSQYB102K50
	C6201, C6205, C6210, C6213, C6237		CKSQYB103K50
	C6276, C6278, C6280, C6281, C6402		CKSQYB103K50
	C6409, C6417, C6418		CKSQYB103K50
	C6251, C6252		CKSQYB153K50
	C6203, C6259		CKSQYB223K50
	C6228		CKSQYB472K50
	C6209		CKSQYB473K50
	C6230		CKSQYB821K50
	C6218, C6223, C6255		CKSQYF103Z50
	C6220, C6226, C6242, C6256		CKSQYF223Z50
	C6225		CKSQYF473Z50

RESISTORS

	R6280		RD1/4PU101J
	R6413, R6416, R6418, R6906, R6909		RS1/8S0R0J
	R6401		RS1/8S470J
	VR6201 (10 kΩ)		RCP1045
	Other Resistors		RS1/10S□□□J

OTHERS

	BN6202	TERMINAL 4P	AKE7025
	X6202	CERAMIC RESONATOR (456 KHz)	ASS1066
	X6201	CRYSTAL RESONATOR (7.2000 MHz)	ASS1093
	CN6201	14P SOCKET	KP200IA14L
		AM RF TUNING BLOCK	AXX7041

C AF ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
⚠	IC1008		AEK7002
	IC1004, IC4201		BU4066BCF
	IC4401		CXA1101P
	IC2101		LC75394NHE
	IC1002, IC1003, IC1005, IC4101, IC4301		NJM4558M-D
	Q1020, Q1023		2SA1037K
	Q1013		2SB1237X
	Q4351-Q4353		2SC1815
	Q4354		2SC2240
	Q1014, Q1015, Q1017-Q1019		2SC2412K
	Q1024, Q1025, Q4201, Q4202		2SC2412K
	Q4301, Q4302, Q4451-Q4454		2SC2412K
	Q1011, Q1012		2SD1858X
	Q4151, Q4152		2SK373
	Q1016		DTA124EK
	Q1003		DTA143ES
	Q4455		DTC124EK
	Q4203		DTC143EK
	Q1004		DTC143ES
	D1003, D1004, D1007, D1008, D1012		1SS254
	D1019, D1020, D1024-D1026		1SS254
	D4151, D4152, D4201, D4351-D4354		1SS254
	D4451, D4452		1SS254
	D1013		MTZJ27B
	D1009, D1014		MTZJ4.3C
	D1010, D1011		MTZJ5.6B
	D1016, D1017, D1021-D1023		S5688G
	D1027, D1028		S5688G

COILS AND FILTERS

	L1001, L1002		ATH-133
	L4301, L4302		LTA822J
	L4351		RTD1077
	F4401, F4402		RTF1217

CAPACITORS

	C4319, C4320		CCCSL271K2H
	C4153, C4154		CCSQCH100D50
	C1001-C1004, C1076-C1078		CCSQCH221J50
	C1039, C1040, C4107, C4108		CCSQCH470J50
	C4151, C4152		CCSQCH681J50
	C4101, C4102, C4307-C4310		CCSQCH821J50
	C4315, C4316		CCSQCH821J50
	C1061, C1062, C4360, C4403, C4404		CEAS100M50
	C4407, C4408, C4452		CEAS100M50
	C1031, C1032, C1060, C4401, C4402		CEAS101M10
	C1083		CEAS101M16
	C1066, C1075, C1086, C4303, C4304		CEAS1R0M50
	C4413, C4414		CEAS1R0M50
	C4451		CEAS220M16
	C1073		CEAS221M10
	C1087, C1088		CEAS2R2M50
	C4103, C4104, C4317, C4318, C4352		CEAS330M16
	C4357, C4358		CEAS330M16
	C1067, C1068, C1089, C4109, C4110		CEAS470M10
	C1015-C1018, C1037, C1038		CEAS4R7M50
	C4201, C4202, C4301, C4302		CEAS4R7M50
	C4311-C4314		CEAS4R7M50
	C1025, C1026		CEASR10M50
	C1007-C1014, C1035, C1036		CEASR33M50
	C1074, C1081, C1082		CEASR47M50
	C4405, C4406		CEASR68M50
	C1090		CGCYF104Z50
	C4361		CKCYB681K2H
	C1023, C1024, C1033, C1034		CKSQYB102K50
	C1085		CKSQYB103K50
	C4411, C4412		CKSQYB152K50
	C1027, C1028		CKSQYB154K16
	C1019, C1020		CKSQYB222K50
	C1029, C1030, C4353, C4354		CKSQYB472K50
	C1021, C1022, C4105, C4106		CKSQYB682K50
	C4305, C4306, C4355		CKSQYB682K50
	C1043-C1048, C1055, C1084, C4113		CKSQYF104Z50
	C1063, C1064		CKSQYF473Z50
	C4409, C4410		CQMA103J50
	C4356		CQMA123J50

Mark	No.	Description	Parts No.
	C4359		CQPA822J2A
RESISTORS			
	R1047, R1048		RD1/2LMF101J
	R1092		RD1/2PM330J
	R4351		RD1/2PM680J
	R1045, R1046		RD1/4PM4R7J
	R4352		RD1/4PU101J
	R4319, R4320		RD1/4PU103J
	R1062		RD1/4PU472J
	R1050		RD1/4PU473J
	R4355		RD1/4PU4R7J
	R1069, R1071		RD1/4PU560J
	R4109, R4110, R4317, R4318		RD1/4PU820J
	R1087		RS2LMF121J
	VR4301, VR4302 (4.7 kΩ)		RCP1020
	VR4201-VR4204 (22 kΩ)		RCP1046
	VR4351, VR4352 (47 kΩ)		RCP1049
	Other Resistors		RS1/10S□□□
OTHERS			
	CN1007	9P JUMPER CONNECTOR	52147-0910
	CN1008	15P JUMPER CONNECTOR	52147-1510
	CN1001, CN1002	35P FFC CONNECTOR	9604S-35C
	JA1001	2P PIN JACK (AUDIO)	AKB7043
	CN1010	SPEAKER TERMINAL 4P	AKE7024
	CN4003	2P TOP POST	B2B-EH
	CN4002	3P TOP POST	B3B-EH
	CN4001	3P TOP POST	B3B-EH-R
	CN1009	CONNECTOR 12P	TUC-P12P-B1
		PCB BINDER	VEF1008
	JA1003	2P PIN JACK	VKB1050

V AMP ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
⚠	IC5503		AEK7004
⚠	IC5504		AEK7016
⚠	IC5501, IC5502		LM3886TF
	Q5501, Q5502		2SA1037K
	Q5503		DTC143EK
	D5501-D5507		1SS254
CAPACITORS			
	C5505, C5506		CCSQCH121J50
	C5501, C5502		CEAL100M25
	C5507, C5508		CEAS100M50
	C5509, C5510		CEAS221M10
	C5511, C5512		CEAS2R2M50
	C5503, C5504		CKSQYB272K50
RESISTORS			
	R5507, R5508		RD1/4PM561J
	R5509, R5510		RD1/4PM563J
	R5513, R5514, R5519, R5520		RD1/4PU103J
	R5515-R5518		RD1/4PU222J
	Other Resistors		RS1/10S□□□
OTHERS			
	J5507	JUMPER WIRE 9P	D20PWY0915E

S POWER SUPPLY ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
⚠	IC5101		AEK7009
	Q5304, Q5306		2SA1037K
	Q5301		2SA965
	Q5104, Q5106		2SA992
⚠	Q5302		2SB1375
	Q5103, Q5105		2SC1845
	Q5107, Q5303, Q5307, Q5308		2SC2412K
⚠	Q5305		2SD2012
⚠	Q5101		IRFI9Z34G
⚠	Q5102		IRFIZ24G
	D5101, D5303, D5307, D5308		1SS254
⚠	D5105, D5106		MTZJ18C
	D5107, D5108		MTZJ22B
	D5302		MTZJ36C
	D5103, D5104		MTZJ5.6C
	D5301		MTZJ6.2B
	D5305, D5306		MTZJ8.2B
⚠	D5102, D5304		S5688G
CAPACITORS			
⚠	C5107, C5108 (3300, μF/42V)		ACH1255
	C5302		CEAL100M50
	C5305, C5306		CEAS101M10
⚠	C5307		CEAS101M50
	C5103, C5104		CEAS470M10
⚠	C5102		CEAS471M35
	C5105, C5106		CEJA101M6R3
	C5101, C5301		CEJA4R7M50
	C5303, C5304		CKSQYB102K50
RESISTORS			
	R5302		RD1/2PM222J
	R5103, R5104		RD1/2PM392J
	R5101		RD1/4PU102J
	R5113, R5114		RD1/4PU222J
	R5111, R5112		RD1/4PU432J
	R5105, R5106		RD1/4PU563J
	R5109, R5110		RD1/4PU911J
⚠	R5107, R5108		RFA1/4PS101J
	Other Resistors		RS1/10S□□□

U PRIMARY ASSY

Mark	No.	Description	Parts No.
RESISTORS			
⚠	R101 (2.2 MΩ, 1/2)		ACN-208

Mark	No.	Description	Parts No.
OTHERS			
	H101, H102	FUSE CLIP	AKR1004
T		**SECONDARY ASSY**	
SEMICONDUCTORS			
⚠	IC5003		AEK7014
⚠	IC5006, IC5007		AEK7017
⚠	D5001		D3SBA20(B)
⚠	D5002-D5005		S5688G
CAPACITORS			
⚠	C5007, C5008		CEAS222M25
B		**TX CONNECT ASSY**	
SEMICONDUCTORS			
	D1001, D1002		1SS254
RESISTORS			
	R1103		RD1/4PU473J
	Other Resistors		RS1/10S□□□
OTHERS			
	CN1004	14P PLUG	KM200IB14
	CN1003	CONNECTOR 12P	TUC-P12X-B1
D		**REGULATOR ASSY**	
SEMICONDUCTORS			
⚠	IC1006		NJM7812FA
⚠	IC1007		NJM78M56FA
	D1018		MTZJ8.2B
CAPACITORS			
	C1069, C1070		CEAS100M50
	C1071, C1072		CKSQYF104Z50
J		**GM-CD ASSY**	
SEMICONDUCTORS			
	IC8151		CXA1372BQ
	IC8301		CXD2519Q
	IC8201, IC8203		LA6517
	IC8202		LA6520
	IC8001		PD4756B
	Q8002		2SC2412K
	Q8401, Q8402		2SD2114K
	Q8301		2SK246
	Q8302		DTA124EK
	Q8003, Q8004, Q8403, Q8404		DTA143EK
	Q8001, Q8303		DTC143EK
	D8001, D8003, D8004, D8301, D8302		1SS254
	D8401, D8402		DAN202K
	D8219		MTZJ6.2B

Mark	No.	Description	Parts No.
COILS AND FILTERS			
	L8301		LAU1R2J
	L8001		LAU220J
	L8002		PTL1014
CAPACITORS			
	C8003		ACH7013
	C8313		CCSQCH100D50
	C8009, C8014, C8015		CCSQCH101J50
	C8401, C8402		CCSQCH151J50
	C8314		CCSQCH220J50
	C8018, C8019		CCSQCH470J50
	C8167		CCSQCH561J50
	C8405, C8406		CCSQCH681J50
	C8002		CEAS100M50
	C8301		CEAS101M10
	C8008		CEAS1R0M50
	C8007		CEAS221M6R3
	C8403, C8404		CEAS2R2M50
	C8017		CEAS330M16
	C8201, C8202		CEAS331M16
	C8001		CEAS470M10
	C8155, C8156		CEAS4R7M50
	C8309		CEASR47M50
	C8603		CGCYX224M12
	C8010, C8012, C8164, C8312, C8605		CKSQYB102K50
	C8151, C8158, C8159, C8162, C8205		CKSQYB103K50
	C8210, C8215, C8219, C8220, C8225		CKSQYB103K50
	C8235, C8245, C8316		CKSQYB103K50
	C8306		CKSQYB152K50
	C8160, C8163, C8166		CKSQYB333K50
	C8165		CKSQYB472K50
	C8004, C8005, C8152-C8154, C8157		CKSQYF104Z50
	C8161, C8302, C8303, C8308, C8602		CKSQYF104Z50
	C8604, C8606		CKSQYF104Z50
	C8006, C8307		CKSQYF473Z50
RESISTORS			
	R8001-R8003, R8011-R8013, R8036		RD1/4PU102J
	R8411		RD1/4PU102J
	R8409, R8410		RD1/4PU221J
	R8221, R8222		RD1/4PU473J
	VR8151, VR8152 (22 kΩ)		RCP1103
	Other Resistors		RS1/10S□□□
OTHERS			
	X8001	CERAMIC RESONATOR (4.19MHz)	VSS1014
	X8301	CRYSTAL RESONATOR (33.8688MHz)	ASS7000
	CN8005	5P JUMPER CONNECTOR	52147-0510
	CN8002	22P FFC CONNECTOR	9604S-22C
	CN8001	35P FFC CONNECTOR	9604S-35C
	CN8201	JACK	VKN-004
	KN8001	EARTH METAL FITTING	VNF1084

Mark	No.	Description	Parts No.

R DISPLAY ASSY

SEMICONDUCTORS

	IC2001	PDG190A
	Q2101	2SC2412K
	D2101-D2103, D2214-D2217	1SS254
	D2238	MTZJ6.2B

COILS AND FILTERS

	L2101	LAU220J
	L2001	PTL1014

SWITCHES AND RELAYS

	S2014-S2017	ASG1034

CAPACITORS

	C2110, C2112	CEAL100M50
	C2106	CEAL1R0M50
	C2101	CEAL470M16
	C2105	CEALR47M50
	C2104	CEJA221M10
	C2107	CKSQYB102K50
	C2111, C2224-C2226, C2229-C2234	CKSQYB103K50
	C2238	CKSQYB103K50
	C2102, C2103	CKSQYF104Z50
	C2239	CKSQYF105Z16
	C2108, C2109	CKSQYF473Z50

RESISTORS

	R2090	RA13T473J
	R2074	RA15T473J
	VR2301 (2.2 kΩ)	RCP1019
	Other Resistors	RS1/10S□□□

OTHERS

X2001	CERAMIC RESONATOR	EFOEC8004A4
CN2001	26P FFC CONNECTOR	9604S-26C
CN2002	35P FFC CONNECTOR	9604S-35C
V2001	FL INDICATOR TUBE	AAV7033
IC2002	REMOTE RECEIVER UNIT	GP1U27X

Q MIC & HP ASSY

CAPACITORS

	C7004, C7005	CKSQYB102K50
	C7001	CKSQYF104Z50
	C7006	CKSQYF224Z25

RESISTORS

	R7001, R7002	RS2LMF331J

OTHERS

JA7001	MINI JACK	AKN7003

Mark	No.	Description	Parts No.

N CENTER SW ASSY

SEMICONDUCTORS

	Q7503	2SB1197K
	Q7501, Q7502	2SD1781K
	Q7404, Q7405, Q7504	DTC124EK
	Q7402, Q7403	DTC143EK
	D7401, D7402, D7406, D7501-D7511	1SS254
	D7404, D7405	MBG5064X
	D7403	SLR-342VCT31

SWITCHES AND RELAYS

	S7401-S7415	ASG1034
	S7416	ASX7004

CAPACITORS

	C7401, C7402	CKSQYB103K50

RESISTORS

	R7416	RS1/10S0R0J
	R7506	RS1/10S122J
	R7501, R7503	RS1/10S152J
	R7413, R7414	RS1/10S221J
	R7505	RS1/10S223J
	R7502, R7504	RS1/10S473J
	Other Resistors	RD1/4PU□□□

OTHERS

J7501	9P CABLE HOLDER	51063-0905
J7502	15P CABLE HOLDER	51063-1505
CN7401	26P FFC CONNECTOR	9604S-26F

O LEFT SW ASSY

SWITCHES AND RELAYS

	S7301	ASG1034

P RIGHT SW ASSY

SWITCHES AND RELAYS

	S7101, S7102, S7201-S7203	ASG1034

RESISTORS

	All Resistors	RD1/4PU□□□

OTHERS

J7402	3P JUMPER WIRE	D20PWW0305E

M HOME SW ASSY

SWITCHES AND RELAYS

	S8001	DSG1048

Mark	No.	Description	Parts No.

K MOTOR ASSY

OTHERS

	J8009	3P JUMPER WIRE	D20PWW0310E

L DOOR SW ASSY

SWITCHES AND RELAYS

	S8002		DSG1016
	S8003		PSG1008

PROTECTOR ASSY

PROTECTOR ASSY has no service part.

F SENSOR PCB ASSY

SEMICONDUCTORS

	D652		GP1S24

OTHERS

	J652	3P JUMPER WIRE	D20PWW0315E

G MOTOR PCB ASSY

OTHERS

		LOADING MOTOR	VXM1034

H SW PCB ASSY

SWITCHES AND RELAYS

	S651, S652		VSG1006

OTHERS

	J656	3P JUMPER WIRE	D20PWW0315E

E MECHA PCB ASSY

SEMICONDUCTORS

	Q651		DTC124ES

RESISTORS

	R651, R652 (56 kΩ)		ACN7012
	R653 (220 Ω)		DCN1062
	R654		DCN1065

OTHERS

	CN652	CONNECTOR	12FMZ-AST
	CN651	CONNECTOR 4P	173979-4
	CN653	22P FFC CONNECTOR	SLEM22R-2

Mark	No.	Description	Parts No.

I MECHANISM BOARD ASSY

SWITCHES AND RELAYS

	S610		DSG1016

OTHERS

	CN610	CONNECTOR	173979-4

6. ADJUSTMENT

6.1 TUNER SECTION

■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Front End Sensitivity	98	0-30	98MHz	L6402 T6401	Adjust so that the DC voltage between the IC6201-Pin 20 becomes at maximum level.
2	TUNED IND. Lighting Level	98	18±2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- *Before adjusting, make sure there is no gap between L6401 and L6402. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*

■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1–1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	AM Front End Sensitivity Adjustment	999*1	35–45	999kHz*1	T6201	Adjust so that the DC voltage between the IC6201-Pin 20 becomes at maximum level.

*1: For the area using 10kHz step, frequencies should be 1000 kHz

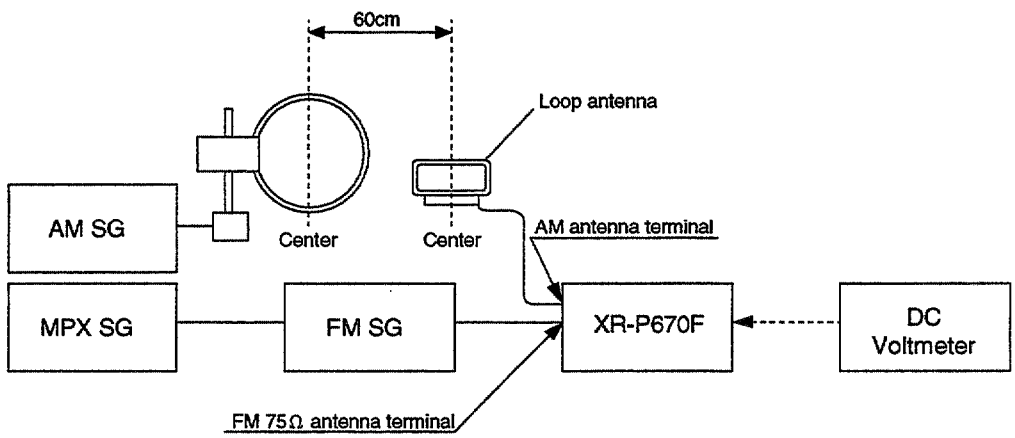


Fig. 1–1 AM and FM Adjustment Wiring Diagram

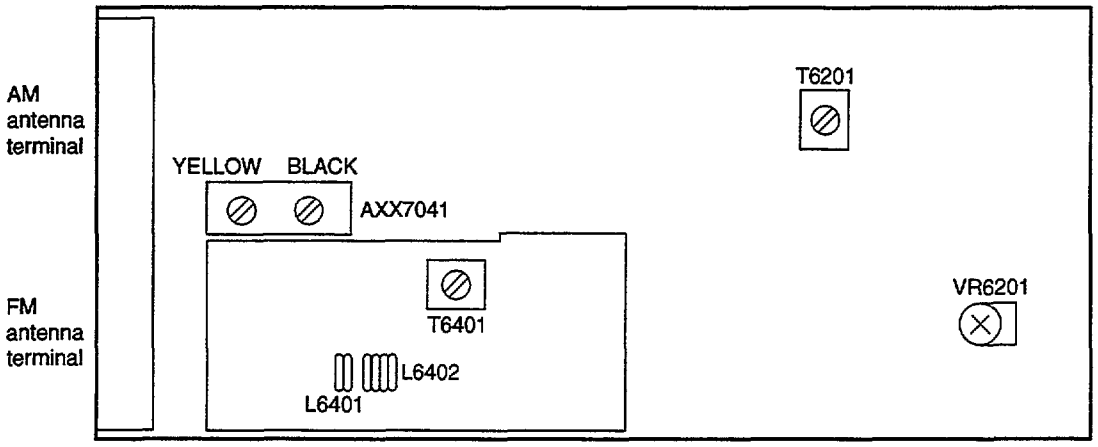


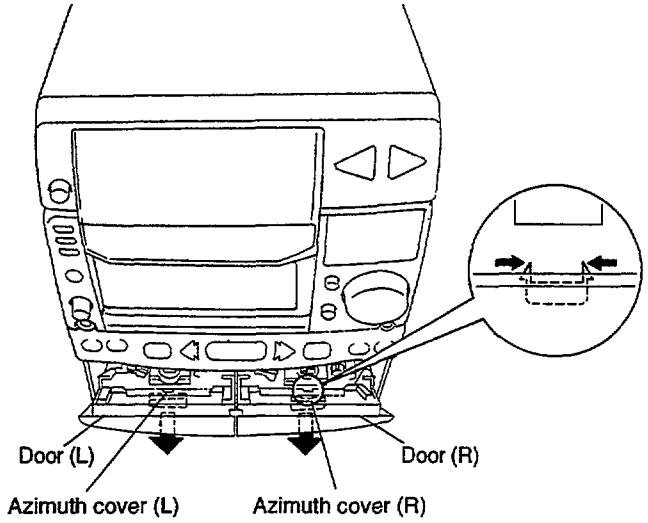
Fig. 1–2 Adjustment Points

6.2 CASSETTE DECK SECTION

• Adjustment points and test points are shown in Fig. 2-3 and Fig. 2-4.

■ Before Adjustment

1. For execution of head angle adjustment, first remove the Azimuth cover (L) and (R).
2. Open the cassette doors (L) and (R).
3. Insert your fingers into the cassette door, push down the two hooks at the upper side of the Azimuth cover, and push them slightly out to the front. Excessive pushing at this time may make it impossible to close the cassette door.
4. Confirm that the Azimuth cover (L) and (R) have been pushed out a little to the front, and then close the cassette doors (L) and (R) and remove the Azimuth cover.



■ Mechanical Adjustment

• Test tape: STD-301 (3kHz, 30min).

(1) Tape Speed Adjustment

• Open the CD DOOR and remove the CD DOOR COVER to adjust tape speed.

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Procedure	Remarks
1	Deck PLAY	STD-301 (Playback: 3kHz)	DISPLAY ASSY VR2301	TAPE TEST POINT (Rch) (AF Assy)	Press the PLAY SW and adjust so that the reading becomes 3000Hz ±20Hz. Confirm that wow & flutter level is below 0.2% (in the reverse direction, confirm that the reading is within 3000Hz ±60Hz).	

■ Electrical Adjustment

Check the following before starting.

(1) Confirm that the tape speed adjustment has been completed.
(2) Clean the heads and demagnetize them using a head eraser.
(3) Set the measurement level to 0 dBV = 1 Vrms.
(4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E: For playback adjustment
STD-631or STD-632: Normal blank tape
(5) Provide yourself with the following measuring devides:
- AC millivoltmeter
- Low-frequency oscillator
- Attenuator
- Oscilloscope

(6) Adjust both right and left channels unless otherwise specified.
(7) Turn the DOLBY NR switch off unless otherwize specified.
(8) Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
(9) Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)
(1) Head Azimuth Adjustment
(2) Playback Level Adjustment

Recording Adjustment (Deck II)
(1) Bias Oscillation Frequency Adjustment
(2) Recording Bias Adjustment
(3) Recording Level Adjustment.
(4) ALC Operation Check

** As the reference recording level is 250nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.*

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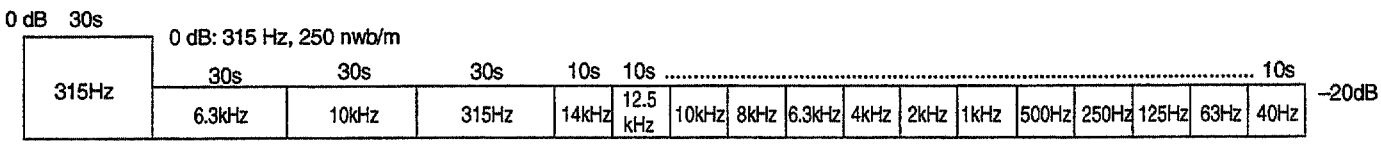


Fig. 2–1 STD-331E Test Tape

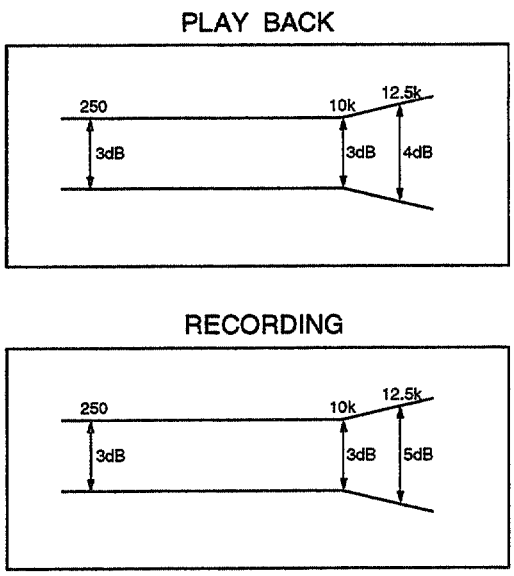


Fig. 2–2 Frequency Characteristics

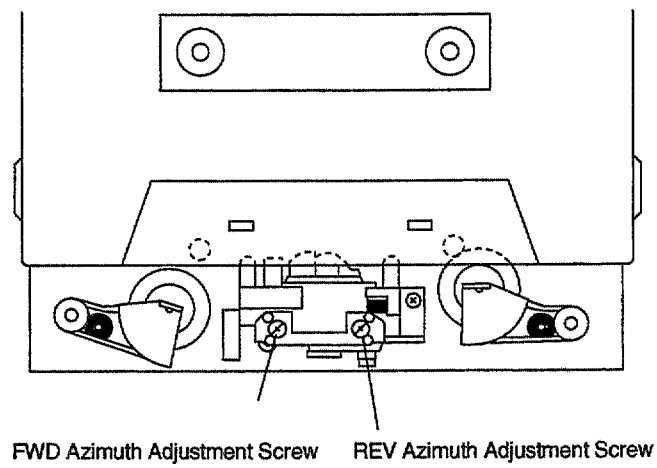


Fig. 2–3 Head Azimuth Adjustment

■ Playback Adjustment

(1) Head Azimuth Adjustment

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	AUTO (NORMAL)	PLAY	STD-331E test tape (Playback: 10kHz, –20dB)	Deck I Deck II	Head azimuth adjustment screw (Fig. 2-3)	TAPE TEST POINT (L, Rch)	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.

(2) Playback Level Adjustment

- Since this adjustment determines playback Dolby NR level, perform it carefully.

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	AUTO (NORMAL)	PLAY	STD-331E test tape (Playback: 315Hz, 0dB)	Deck I Deck II	VR4203 (Lch) VR4204 (Rch) VR4201 (Lch) VR4202 (Rch)	TAPE TEST POINT (L, Rch)	– 4.2 dBV	

Note: Please execute playback level adjustment always in the order of deck I → deck II
When deck I has been adjusted, always adjust deck II also.

■ Recording Adjustment

(1) Bias Oscillation Frequency Adjustment

Step	Tape Selector (AUTO)	Mode	Input Signal/ Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	AUTO (NORMAL)	REC	Load the STD–631 or STD–632 test tape and set the recording mode.	Deck I	———	———	Oscillation frequency to be 105.0kHz ±2kHz.	When the power is turned ON while the MEMORY button is depressed, the frequency will decrease 2 – 3 kHz.
				Deck II	L4351	Between Ⓐ point in Fig. 2-4 and GND.		

(2) Recording Bias Adjustment

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	AUTO (NORMAL)	REC	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Deck I	——	TAPE TEST POINT (L, Rch)	– 24.2 dBV	
				Deck II	Input signal level			
2	AUTO (NORMAL)	REC→ PLAY	Load the STD-631 or STD-632 test tape and record/playback the 315Hz and 10kHz signals. (see the Note below)	Deck I	——	TAPE TEST POINT (L, Rch)	Repeat adjustment until playback level of the 10kHz signal is within –1±0.5dB from that of the 315Hz signal.	
				Deck II	VR4351 (Lch) VR4352 (Rch)			

Note: Set the 10kHz input signal level to the same value as the 315Hz input signal level of step 1.

(3) Recording Level Adjustment

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points		Measurement Points	Adjustment Value	Remarks
1	AUTO (NORMAL)	REC	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Deck I Deck II	Input signal level	TAPE TEST POINT (L, Rch)	– 8.2 dBV	
2	AUTO (NORMAL)	REC → PLAY	STD-631 or STD-632 test tape and record/playback the 315Hz signal.	Deck I Deck II	—— VR4301 (Lch) VR4302 (Rch)	TAPE TEST POINT (L, Rch)	Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes –8.2dBV.	

(4) ALC Operation Check

Step	Tape Selector (AUTO)	Mode	Input Signal/Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	AUTO (NORMAL)	REC	Input a 315Hz signal to the AUX terminal and set the input selector to AUX.	Input signal level	TAPE TEST POINT (L, Rch)	– 8.2 dBV	
2				Set to a level +10 dB above the input level at step 1.		Confirm that the reading is –3.2±2.5dBV.	

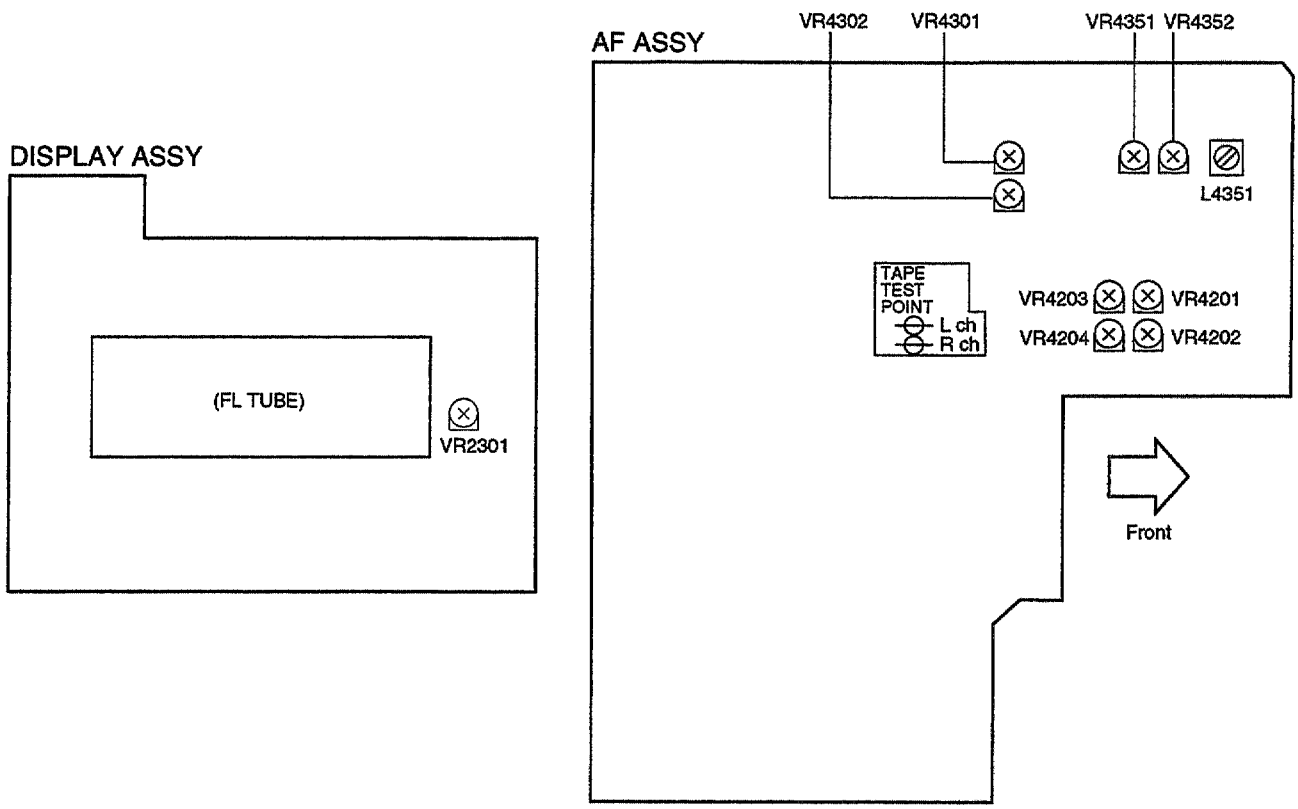
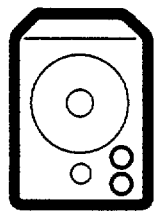
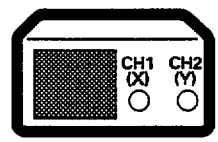
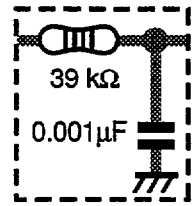


Fig. 2–4 Adjustment and Measurement points

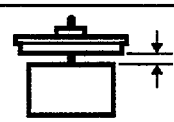
6.3 CD SECTION (CD部の調整)

6.3.1 PREPARATIONS (準備)

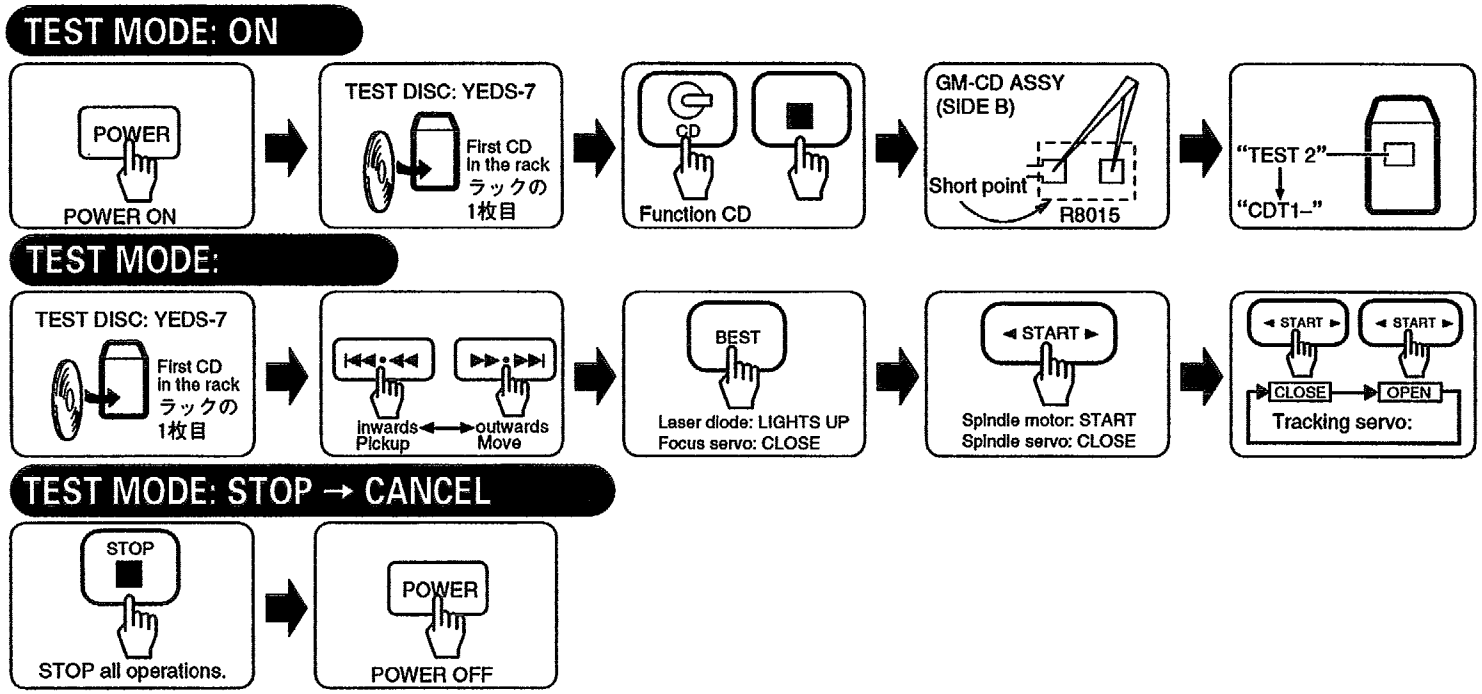
(1) Jigs and Measuring Instruments (使用測定器/治工具類)

CD TEST DISC (YEDS-7)	⊖ Precise screwdriver	⊖ screwdriver (small)	⊕ screwdriver (medium)
⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter (39 kΩ + 0.001μF)

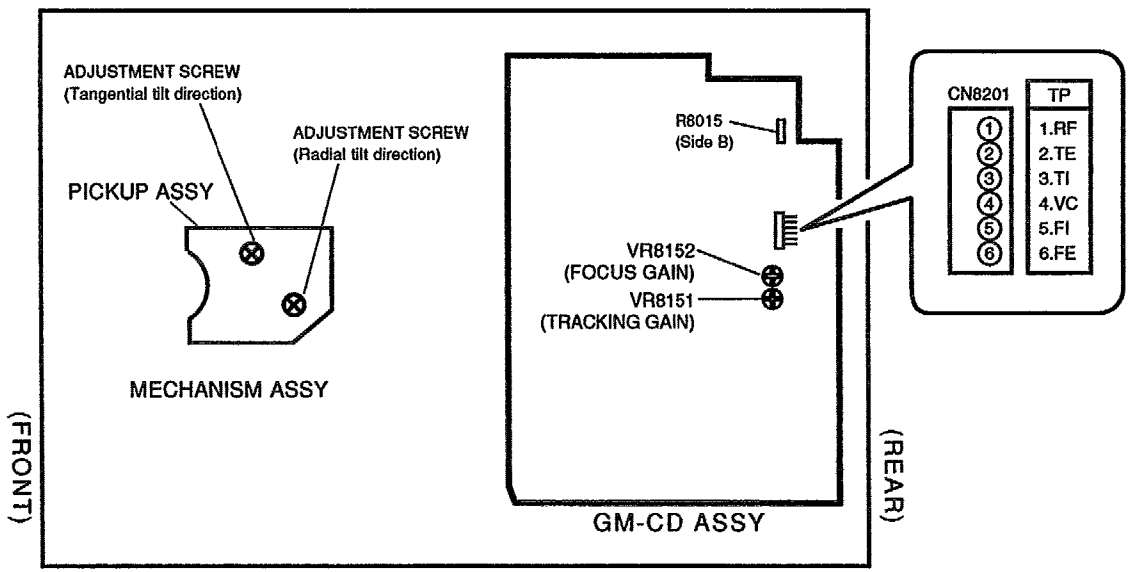
(2) Necessary Adjustment Points (調整に必要な項目)

When (このような時)	Adjustment points
Exchange PICKUP (ピックアップを交換した時)	1.2.3.4.5.6. → Page 71—73
Exchange CD ASSY (CD ASSYを交換した時)	1.2.3.4.5.6. → Page 71—73
Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時)	1.2.3.4.5.6. → Page 71—73
Exchange SPINDLE MOTOR (スピンドルモーターを交換した時)	 ADJ → Page 12

(1) How to Start/Cancel Test Mode （テストモ-ドの設定/解除）

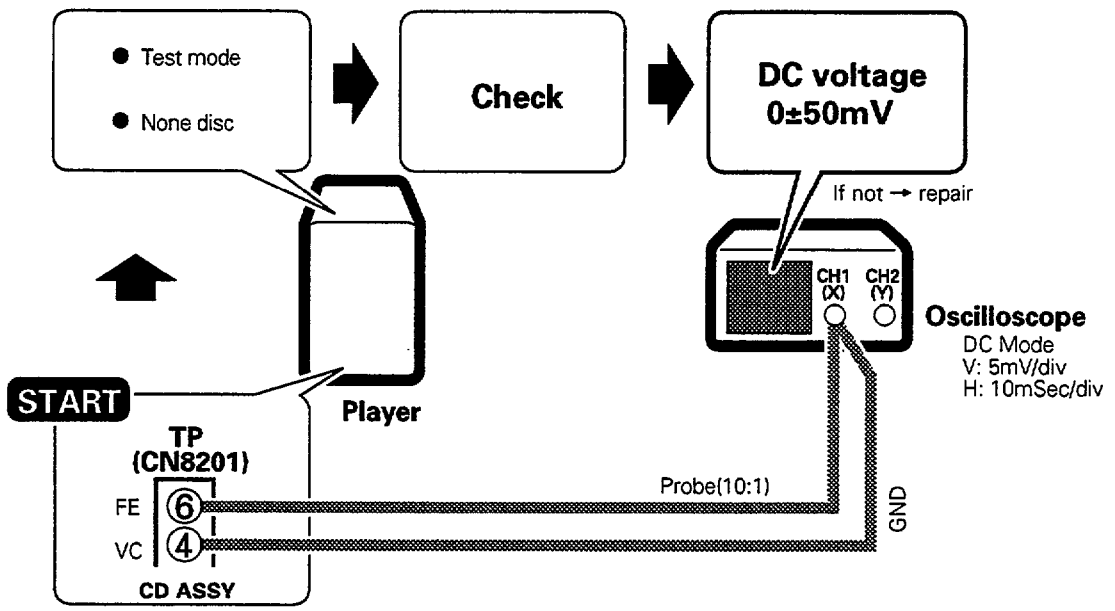


(2)Adjustment Locations（テストポイントと調整用VRの位置）

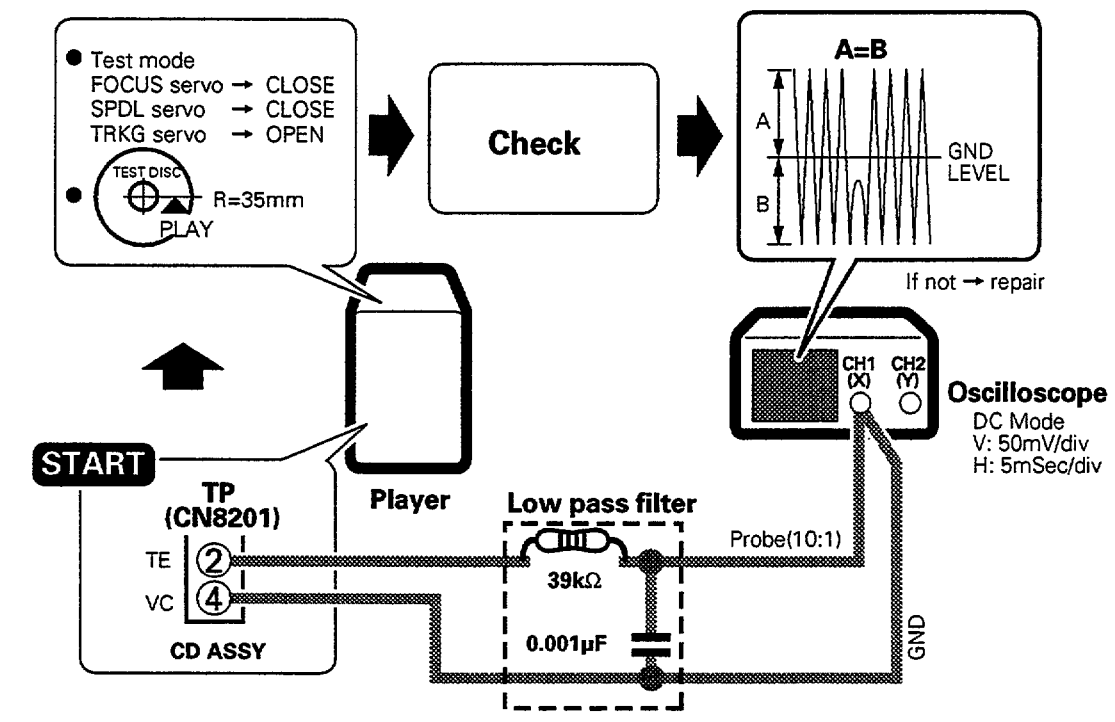


(3) Check and Adjustment (確認、調整)

1. Focus Offset Check
(フォーカスオフセット確認)

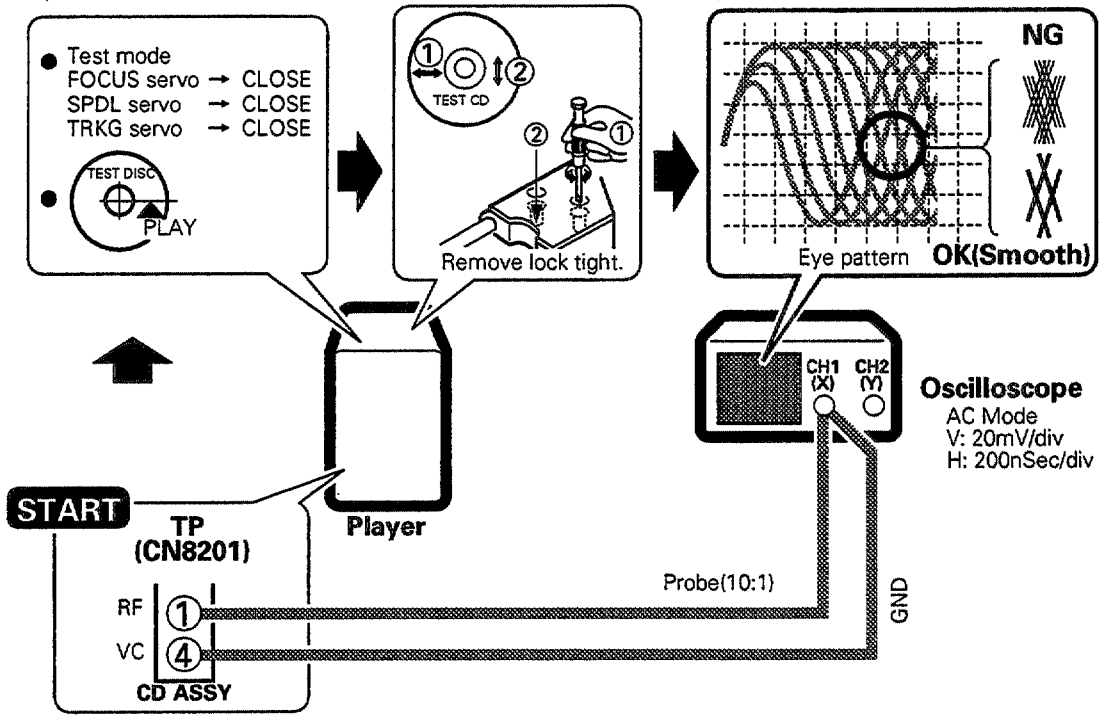


2. Tracking Error Balance Check
(トラッキングエラーバランス確認)



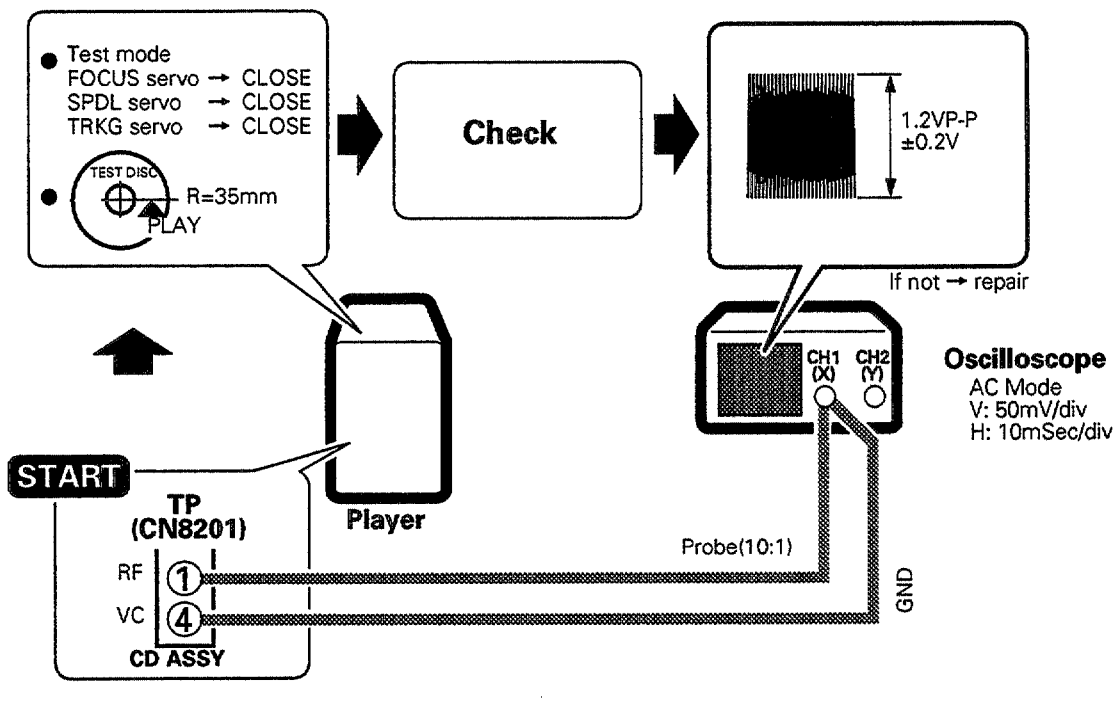
3. PICKUP ①RADIAL / ②TANGENTIAL DIRECTION TILT ADJUSTMENT

(ピックアップ①ラジアル方向②タンジェンシャル方向の傾き調整)

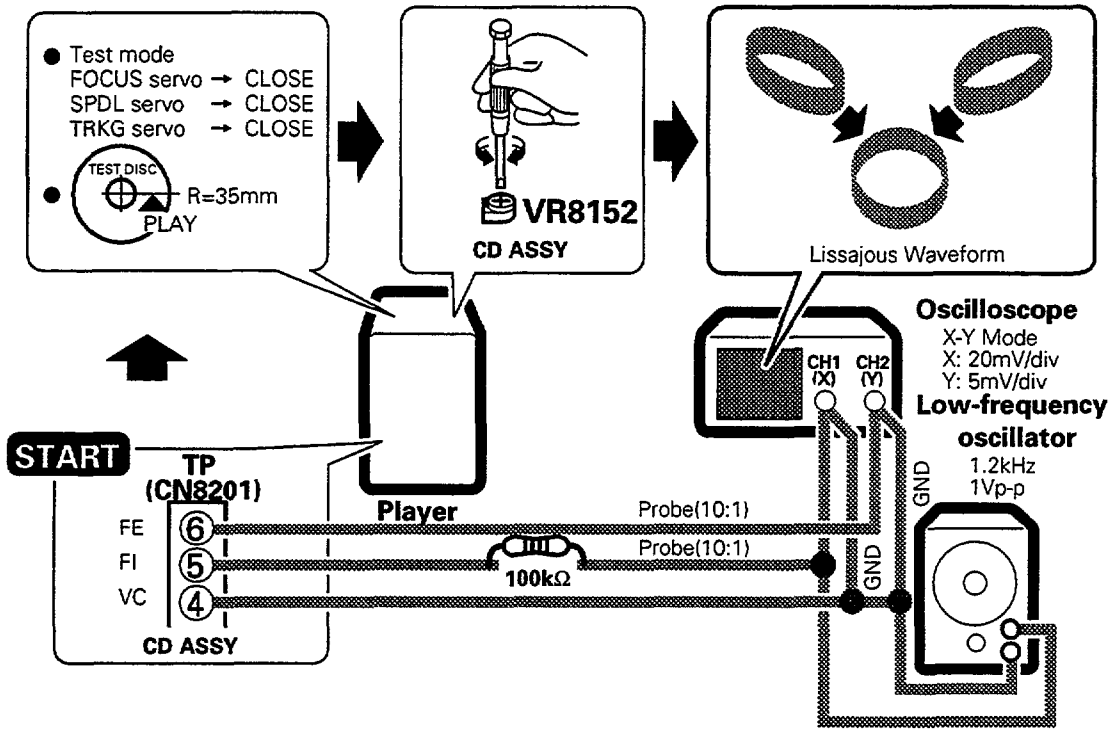


4. RF LEVEL CHECK

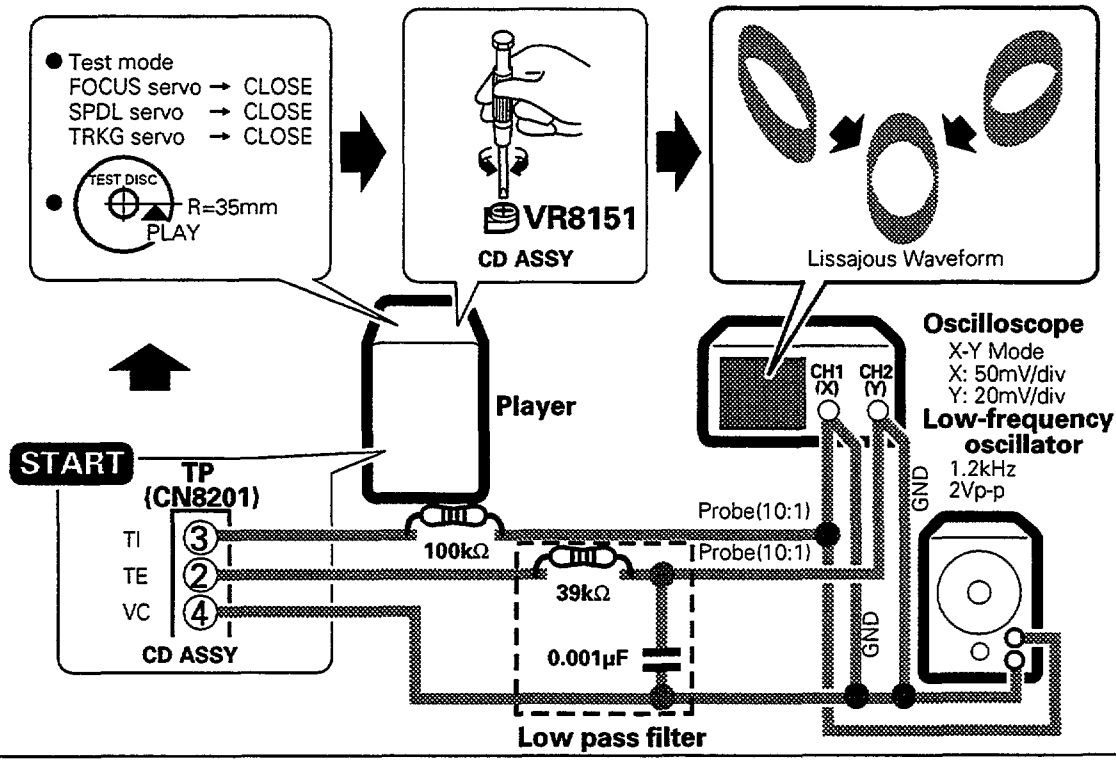
(RFレベル確認)



5. Focus Servo Loop Gain Adjustment
(フォーカスサーボループゲイン調整)



6. Tracking Servo Loop Gain Adjustment
(トラッキングサーボループゲイン調整)



7. GENERAL INFORMATION

7.1 PARTS

7.1.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PD4756B (GM-CD ASSY : IC8001)

● CD, Tuner Control Microcomputer

● Pin Function

No.	Pin Name	I/O	Function CD/TUNER	Description	No.	Pin Name	I/O	Function CD/TUNER	Description
1	P15	I	TUNER	RDS ID	35	P57	O	CD	LEDR * LED Red L : lights (LED レッド L : 点灯)
2	P16	I	TUNER	RDS DATA	36	P60	I	CD	EJECT * L : Complete return (L : リターン完)
3	P17	O	TUNER	RDS MUTE	37	P61	I	CD	CLMP * L : Complete clamp (L : クランプ完)
4	AVss	–	—	GND	38	P62	I	CD	HOME * L : Home position (L : ホーム位置)
5	P130	O	CD	DOOR IN *1	39	P63	I	—	NC
6	P131	O	CD	DOOR OUT *1	40	P64	I	—	NC
7	AVref1	–	—	+5V	41	P65	I	—	NC
8	P70	I	TUNER	PLL DATA IN	42	P66	I	—	NC
9	P71	O	TUNER	PLL DATA OUT	43	P67	I	CD	INSD *L : Carridge inside
10	P72	O	TUNER	PLL DATA CLK	44	P30	I/O	—	SB R/E
11	S11	I	CD	SQSO	45	P31	I/O	—	SB DATA
12	S01	O	CD	CD LSI DATA	46	P32	O	CD	LDON *L : LD ON
13	SCK 1	O	CD	CD LSI CLK	47	P33	O	CD	DSLT *2
14	P23/STB	O	—	NC	48	P34	O	CD	DSRT *2
15	P24	O	TUNER	PLL CE	49	P35	O	CD	L IN *3
16	P25	O	TUNER	TX MUTE	50	P36	O	CD	L OUT *3
17	S00	O	—	DISP DATA	51	P37	I	CD	D CNT
18	SCK0	O	—	DISP CLK	52	P120/RTP0	O	—	NC
19	P40	O	CD	XLAT	53	P121	I	CD	DOOR CLOSE * L : Complete close (L : クローズ完)
20	P41/AD1	O	—	NC	54	P122	I	CD	DOOR OPEN * L : Complete open (L : オープン完)
21	P42/AD2	O	—	NC	55	P123	O	—	NC
22	P43/AD3	O		NC	56	P124	O	—	NC
23	P44/AD4	O	—	NC	57	P125	O	CD	XRST
24	P45/AD5	O	—	NC	58	P126	O	CD	MUTE
25	P46/AD6	O	—	NC	59	P127	O	CD	XTAL ON/OFF
26	P47/AD7	O	—	NC	60	RESET	–	—	RESET
27	P50/A8	O	—	NC	61	INTP0	I	TUNER	RDS CLK
28	P51/A9	O	—	NC	62	INTP1	I	—	SB CLK
29	P52	I	CD	GFS	63	INTP2	I	CD	SCOR
30	P53	I	CD	SENS	64	INTP3	I	—	AC WAVE
31	P54	O	—	RESET OUT * System microprossor hard reset output. (システムマイコンリセット出力)	65	P04/INTP4	–	—	NC
					66	P05/INTP5	–	—	NC
32	P55	I	—	POWER ON/OFF	67	P06/INTP6	–	—	NC
33	Vss	–	—	GND	68	Vdd	–	—	+5V
34	P56	O	CD	LEDG * LED Green L : lights (LED グリーン L : 点灯)	69	X2	–	—	*Main system clock (4.19MHz)

No.	Pin Name	I/O	Function CD/TUNER	Description	No.	Pin Name	I/O	Function CD/TUNER	Description
70	X1	–	—	*Main system clock (4.19MHz)	76	ANI0	I	—	TEST * Type check when initialising (イニシャライズ時仕向チェック)
71	IC	–	—	GND	77	ANI1	I	—	PULL UP
72	XT2	–	—	NC	78	ANI2	I	—	PULL UP
73	P07	I	CD	FCOK	79	ANI3	I	TUNER	ST/TUNED
74	AVdd	–	—	+5V	80	P14	I	—	MODEL CHECK * L : GS2 system H : GS1 system
75	AVref0	–	—	+5V					

*1 Electric door operation
(電動ドア動作)

Operation	Door IN	Door OUT
STOP	L	L
OPEN	L	H
CLOSE	H	L
Setting prohibition	H	H

*2 Select operation
(セレクト動作)

Operation	DSLT	DSRT
STOP	L	L
Right direction (1 → 25)	L	H
Left direction (25 → 1)	H	L
Setting prohibition	H	H

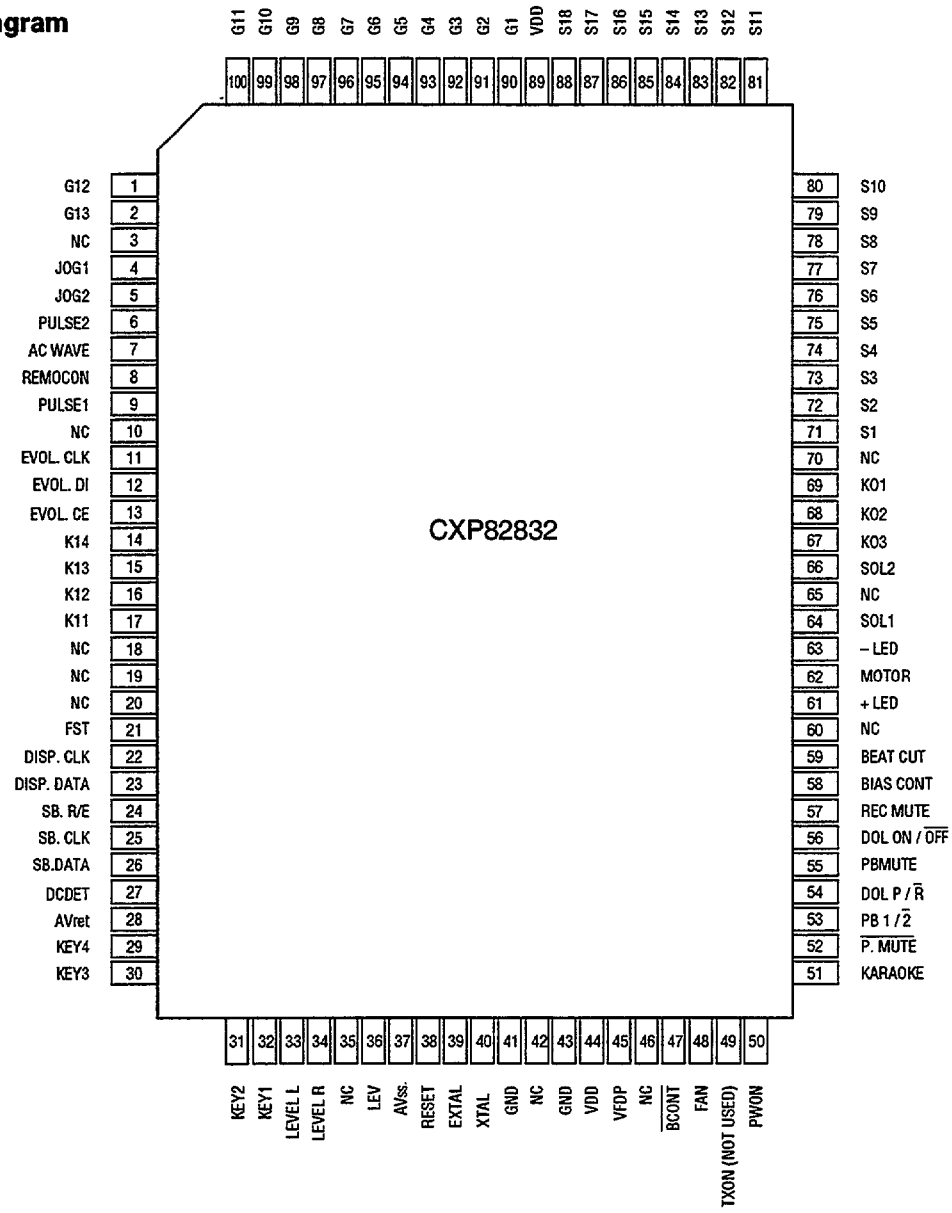
*3 Clamp/return operation
(クランプ/リターン動作)

Operation	L IN	L OUT
STOP	L	L
RETURN	L	H
CLAMP	H	L
Setting prohibition	H	H

■ PDG190A (DISPLAY ASSY : IC2001)

● Display, Deck, Amp Control Microcomputer

● Block Diagram



● Pin Function

Pin No.	Pin Name	I/O	Description	Pin No.	Pin Name	I/O	Description
1	G1/A1	O	G12	41	Vss	–	GND
2	G0/A0	O	G13	42	TX	–	NC
3	NC	–	VDD	43	TEX	–	GND
4	PE0	I	JOG1	44	VDD	–	VDD
5	PE1	I	JOG2	45	VFDP	–	VFDP
6	PE2	I	PULSE2	46	PD0	–	NC
7	PE3	I	AC WAVE	47	PD1	O	$\overline{\text{BCONT}}$
8	PE4	I	REMOCON	48	PD2	O	FAN
9	PE5	I	PULSE1	49	PD3	–	NC
10	PE6	–	NC	50	PD4	O	PWON
11	PE7	O	EVOL. CLK	51	PD5	O	KARAOKE
12	PC0	O	EVOL. DATA	52	PD6	O	$\overline{\text{PMUTE}}$
13	PC1	O	EVOL. CE	53	PD7	O	PB 1/$\overline{2}$
14	PC2	I	K14	54	PF0	O	DOL P/$\overline{\text{R}}$
15	PC3	I	K13	55	PF1	O	PBMUTE
16	PC4	I	K12	56	PF2	O	DOL $\overline{\text{ON}}$/OFF
17	PC5	I	K11	57	PF3	O	REC MUTE
18	PC6	–	NC	58	PF4	O	BIAS CONT
19	PC7	–	NC	59	PF5	O	BEAT CUT
20	PB0	–	NC	60	PF6	–	NC
21	PB1	I	FST	61	PF7	O	+LED
22	PB2	I	DISP. CLK	62	PG0	O	MOTOR
23	PB3	I	DISP. DATA	63	PG1	O	–LED
24	PB4	I/O	SB. R/E	64	PG2	O	SOL1
25	PB5	O	SB. CLK	65	PG3	–	NC
26	PB6	I/O	SB. DATA	66	PG4	O	SOL2
27	PB7	I	DCDET	67	PG5	O	KO3
28	AVref	–	AVref	68	PG6	O	KO2
29	PA0	A/D	KEY4	69	PG7	O	KO1
30	PA1	A/D	KEY3	70	PH0	–	NC
31	PA2	A/D	KEY2	71	A30	O	S1
32	PA3	A/D	KEY1	72	A29	O	S2
33	PA4	A/D	LEVEL L	73	A28	O	S3
34	PA5	A/D	LEVEL R	74	A27	O	S4
35	PA6	–	NC	75	A26	O	S5
36	PA7	A/D	LEV	76	A25	O	S6
37	AVss	–	AVss	77	A24	O	S7
38	RESET	I	RESET	78	A23	O	S8
39	EXTAL	–	EXTAL	79	A22	O	S9
40	XTAL	–	XTAL	80	A21	O	S10

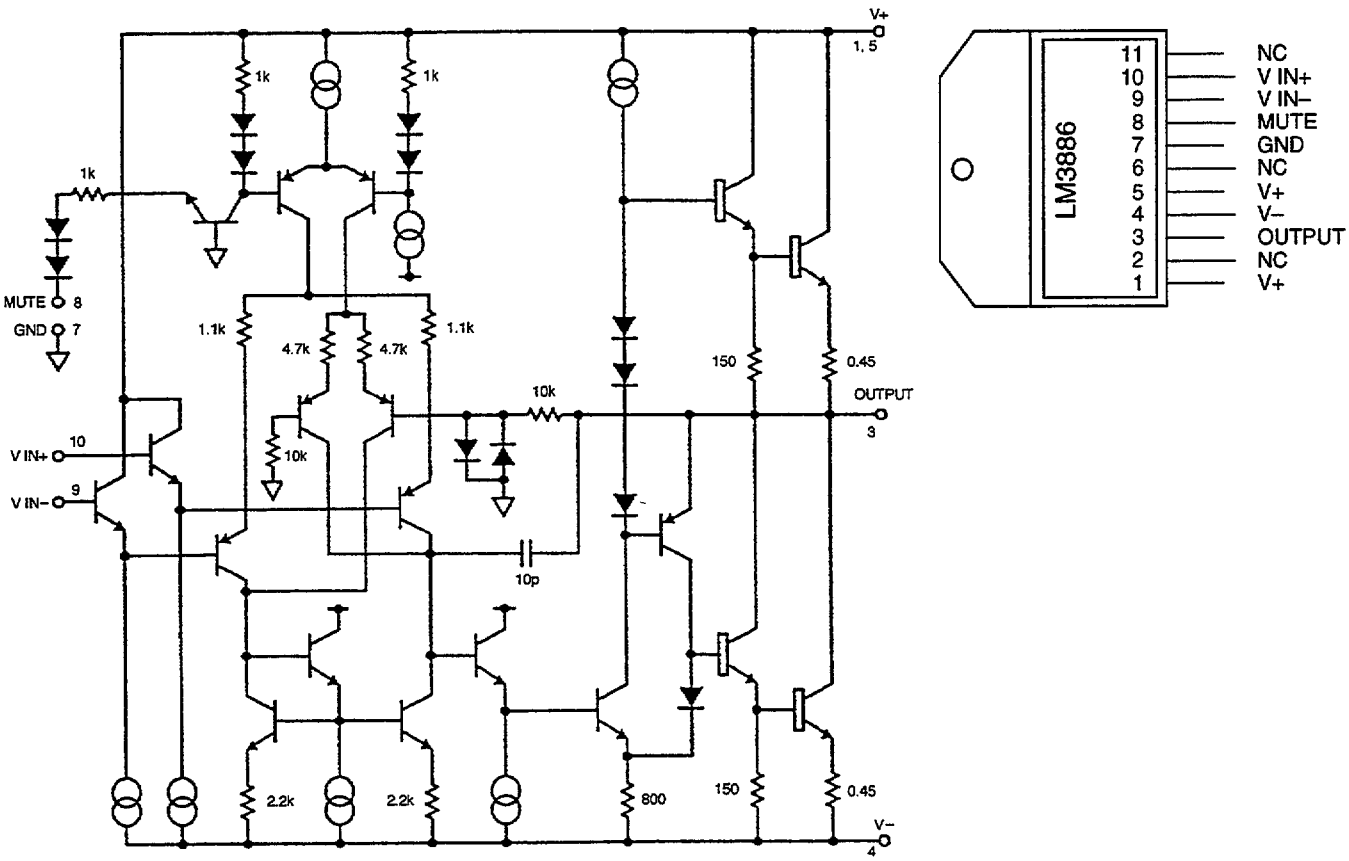
Pin No.	Pin Name	I/O	Description	Pin No.	Pin Name	I/O	Description
81	A20	O	S11	91	G11/A11	O	G2
82	A19	O	S12	92	G10/A10	O	G3
83	A18	O	S14	93	G9/A9	O	G4
84	A17	O	S15	94	G8/A8	O	G5
85	A16	O	S16	95	G7/A7	O	G6
86	A15	O	S17	96	G6/A6	O	G7
87	A14	O	S17	97	G5/A5	O	G8
88	A13	O	S18	98	G4/A4	O	G9
89	VDD	–	VDD	99	G3/A3	O	G10
90	G12/A12	O	G1	100	G2/A2	O	G11

I/O : INPUT/OUTPUT
I : INPUT
O : OUTPUT

■ LM3886TF (AMP ASSY : IC5501, IC5502)

● Audio Power Amplifier

● Block Diagram

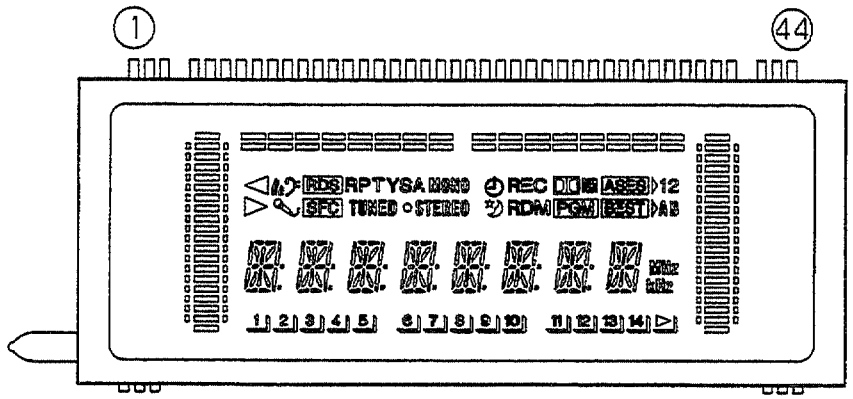


7.1.2 DISPLAY

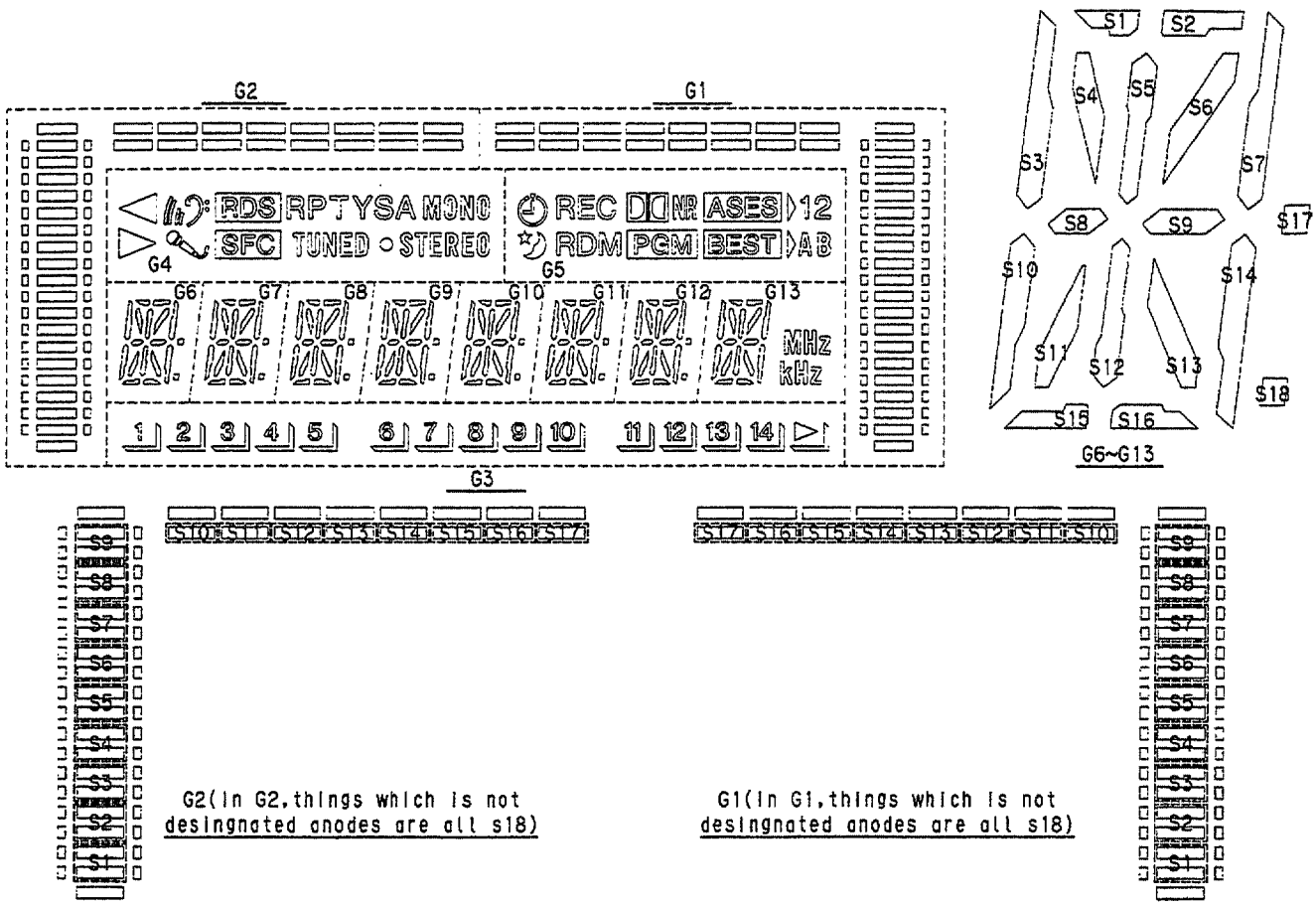
■ AAV7033 (DISPLAY ASSY : V2001)

● FL Tube

● Pin Assignment



● Anode and Grid Connection


G2
G1
RDS RPTYSA MONO REC NR ASES 12
SFC TUNED STEREO RDM PGM BEST AB
G4
G5
G6 G7 G8 G9 G10 G11 G12 G13
MHz
kHz
1 2 3 4 5 6 7 8 9 10 11 12 13 14
G3
S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18
G6~G13
G2(In G2, things which is not designated anodes are all S18)
G1(In G1, things which is not designated anodes are all S18)

● Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Assignment	F1	F1	F1	NP	NL	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17

Pin No.	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Assignment	S18	NL	NL	NL	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	NL	NP	F2	F2	F2

F1,F2:Filament G1–G13:Grid S1–S18:Anode NP:No Pin NL:No Lead

● Anode and Grid Assignment

	G1	G2	G3	G4	G5	G6~G12	G13
S1	S1	S1	1	◁	PGM	S1	S1
S2	S2	S2	2	▷	BEST	S2	S2
S3	S3	S3	3	🔧	🕐	S3	S3
S4	S4	S4	4	STEREO	☆	S4	S4
S5	S5	S5	5	TUNED	▷(AB)	S5	S5
S6	S6	S6	6	○	A	S6	S6
S7	S7	S7	7	SFC	RDM	S7	S7
S8	S8	S8	8		▷(12)	S8	S8
S9	S9	S9	9	?	1	S9	S9
S10	S10	S10	10	RDS	2	S10	S10
S11	S11	S11	11	T	DD NR	S11	S11
S12	S12	S12	12	Y	REC	S12	S12
S13	S13	S13	13	P	ASES	S13	S13
S14	S14	S14	14	R	B	S14	S14
S15	S15	S15	▷	S		S15	S15
S16	S16	S16	┘(15箇所)	A		S16	S16
S17	S17	S17				S17	MHz
S18	S18	S18		MONO		S18	KHz

7.2 DISASSEMBLY (各部のはずしかた)

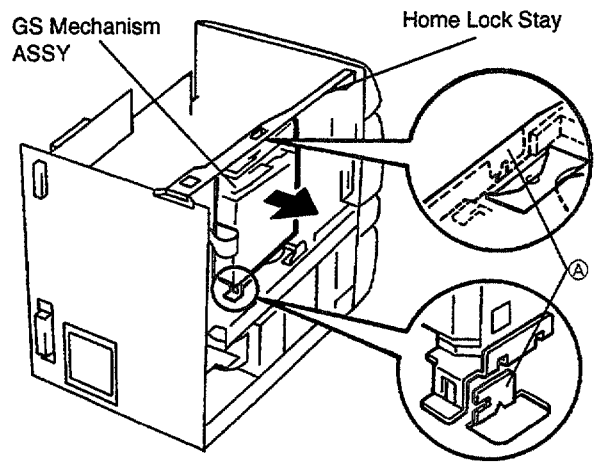
■ REMOVING THE GS MECHANISM ASSY (GSメカASSYのはずしかた)

NOTE : Before removing the GS Mecha Assy, make sure you turn the power OFF and disconnect the AC power cord.

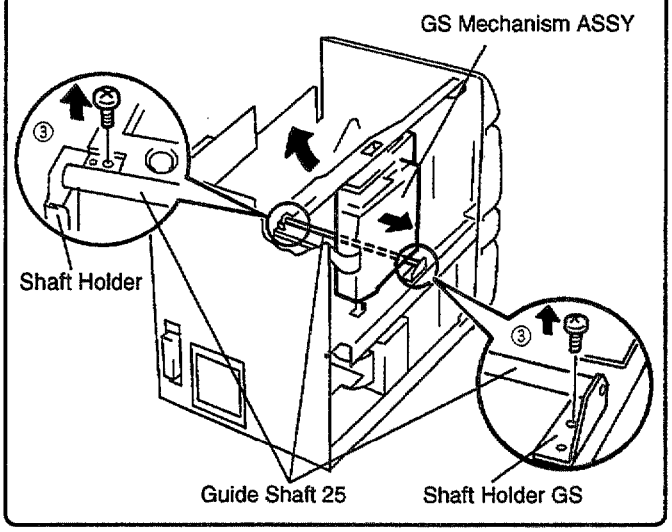
(注意 : はずす前に必ず電源を切ってから電源コードを抜いてください。)

① Remove the bonnet. (Since the front of the home lock stay makes contact, hold the bonnet in that place and pull and lift at the same time.)
(ボンネットをはずす。ホームロックステイのフロント側があたるので、その箇所のボンネットを持ち上げながら引く。)

② Move the GS Mechanism ASSY to the right (viewed from the rear), watching out for the 2 Lock locations (partⒶ).
(GSメカASSYをロック2ヶ所(Ⓐ部)を解除して、リア側から見て右端に移動する。)



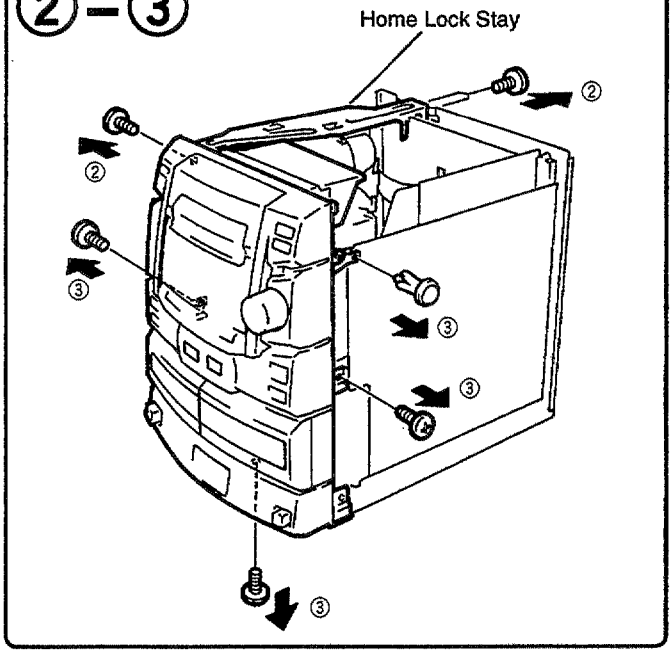
③ Release the shaft holder that fixes guide shaft-25 in place (screw ③), and remove the GS Mechanism ASSY together with the guide shaft.
(ガイドシャフトSを固定しているシャフトフォルダーをはずし(ネジ③)、GSメカAssyのロック(Ⓐ部)を解除して、ガイドシャフトSごとGSメカASSYをはずす。)



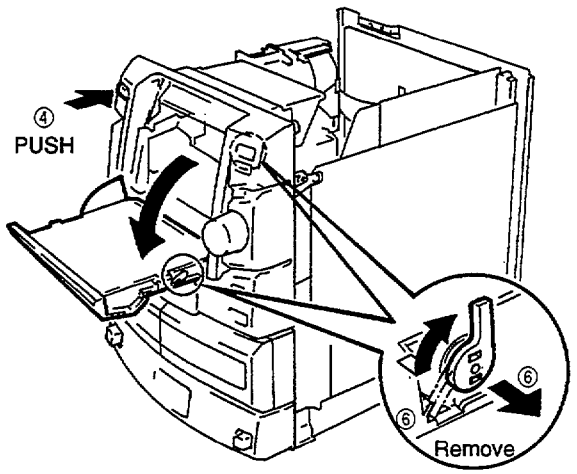
■ REMOVING THE FRONT PANEL (フロントパネルのはずしかた)

① Remove the bonnet.
(ボンネットをはずす。)

②–③

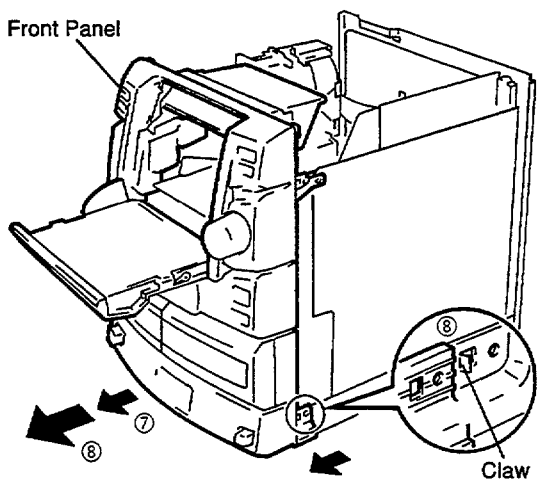


④–⑥



⑦ Shift the front panel slightly toward you, being cautious of the left and right catches on the chassis and sub chassis.
(フロントパネルをシャーシとサブシャーシの左右のツメに注意しながら手前に少しずらす。)

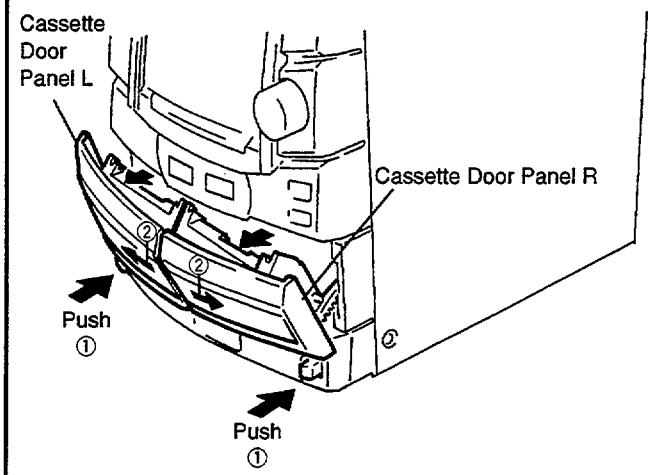
⑧ Pull the front panel further toward you, and remove it from the chassis.
(フロントパネルをさらに手前に引き、シャーシから抜く。



■ HOW TO REMOVE THE DOOR PANEL
(カセットドアパネルのはずしかた)

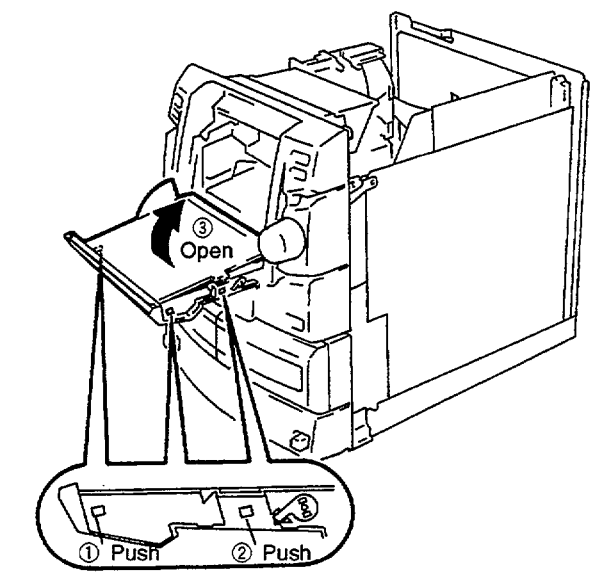
① Open the Cassette Door Panel.
(カセットドアパネルをOPENする。)

② Slide the Cassette Door Panel, then remove it.
(カセットドアパネルをスライドさせはずす。)



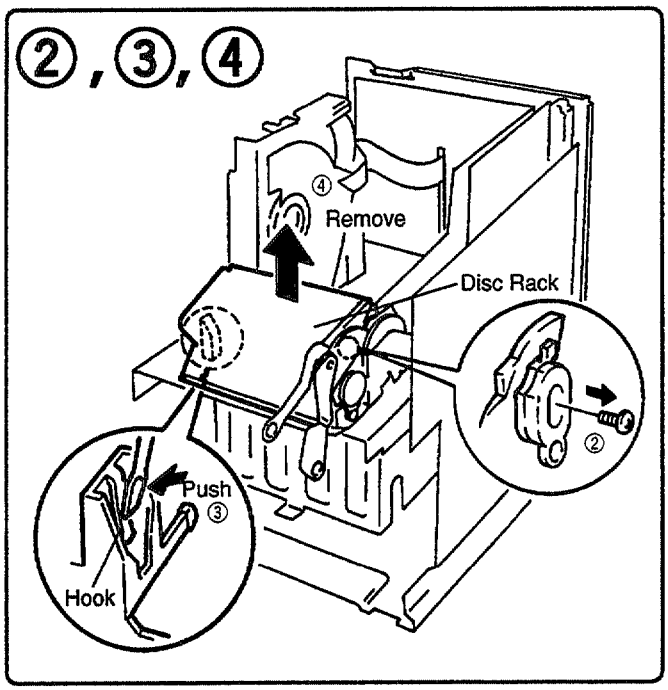
■ MICRO COMPUTER IC REPLACEMENT METHOD
(マイコンICの交換方法)

①,②,③



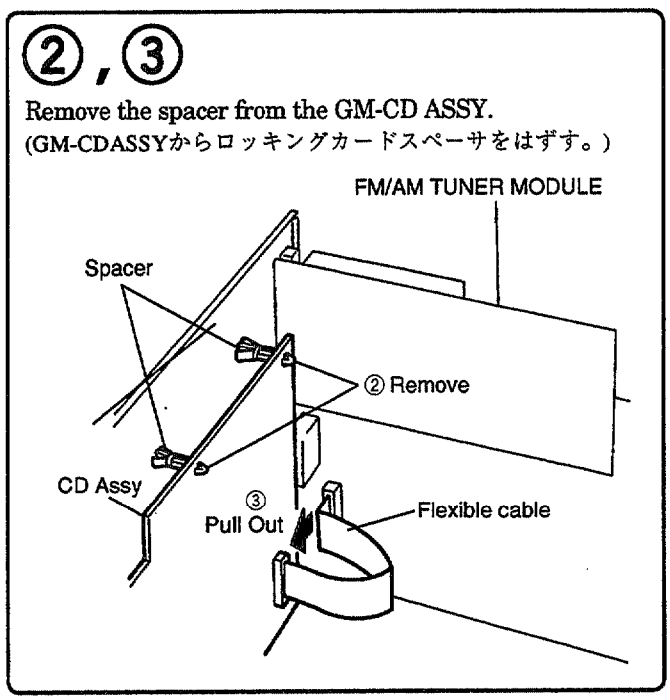
■ REMOVING THE DISC RACK (ディスクラックのはずしかた)

① Remove the front panel.
(フロントパネルをはずす。)

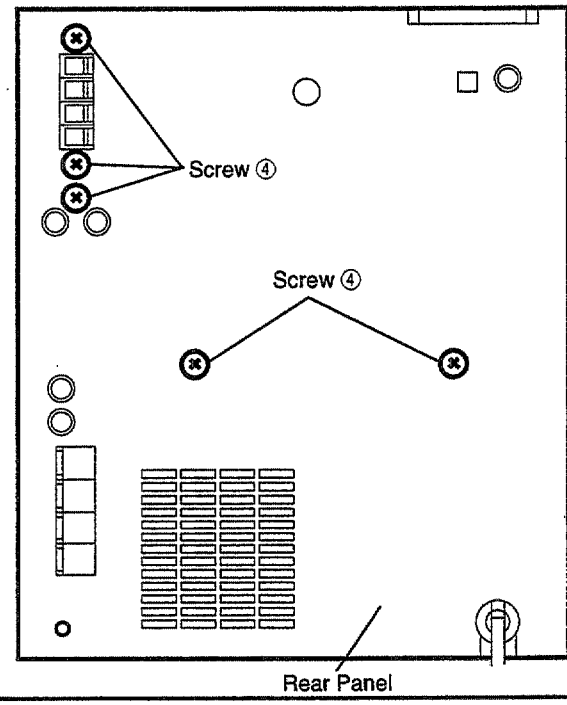


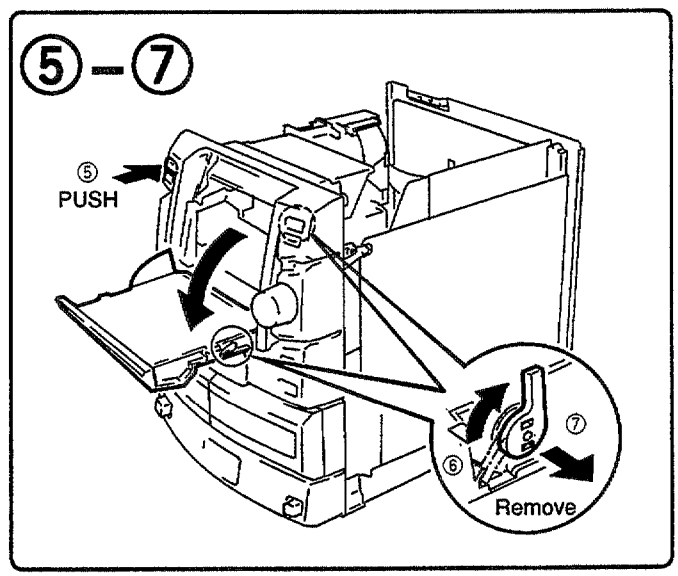
■ REMOVING THE POWER AMP MODULE (パワーアンプモジュールのはずしかた)

① Remove the bonnet and home lock stay.
(Refer to "■ Removing the Front Panel")
(ボンネットとホームロックステイをはずす。)
(“フロントパネルのはずし方” 参照)



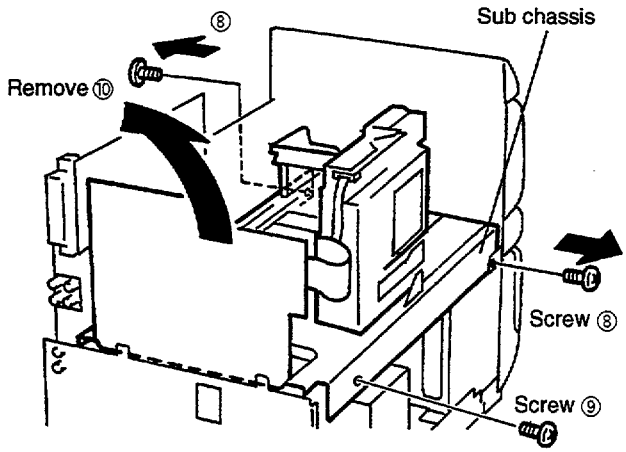
④ Remove the rear panel (screw ④ x 5).
(リアパネルをはずす。(ネジ④ 5本))



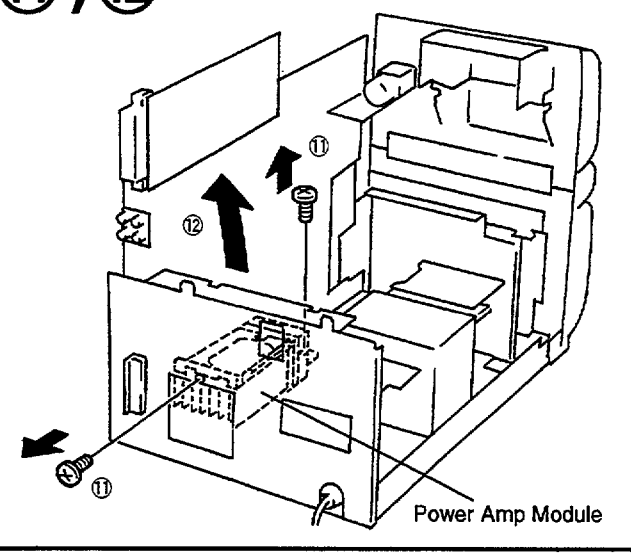


⑧, ⑨, ⑩

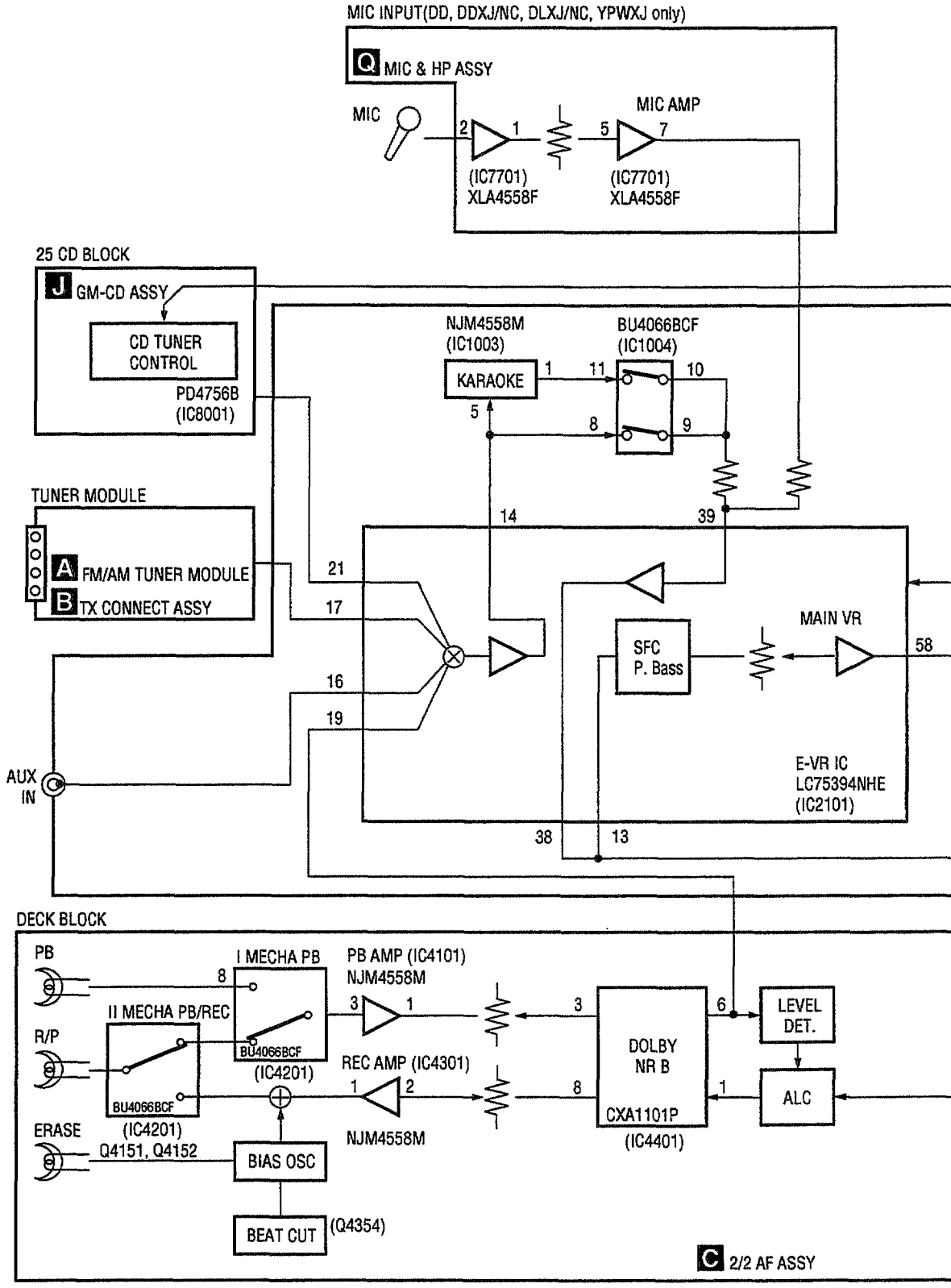
Remove screw ⑧, ⑨ and remove the sub chassis together with the GS Mechanism ASSY.
(ネジ⑧, ⑨をはずしてGSメカごとサブシャーシをはずす。)

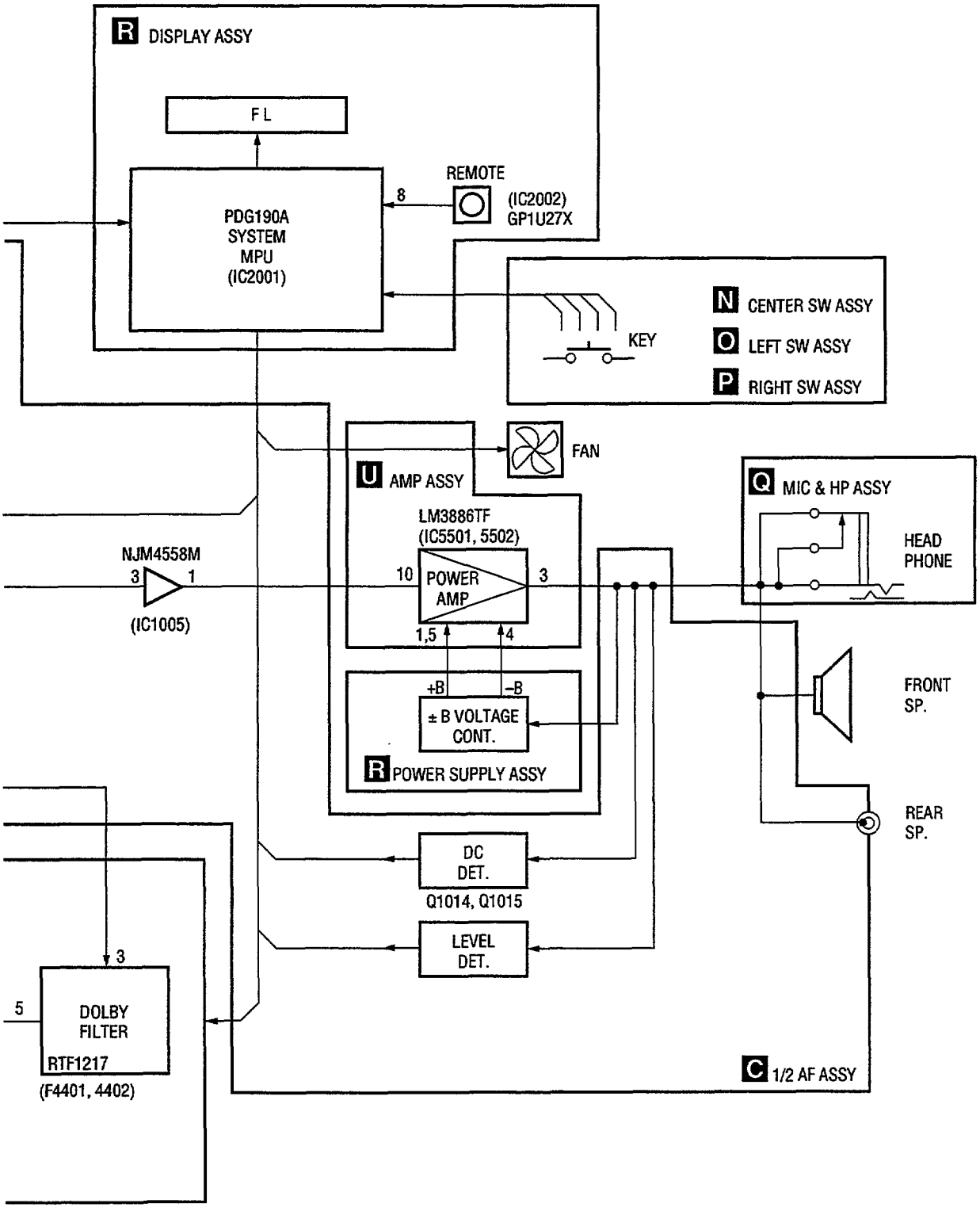


⑪, ⑫

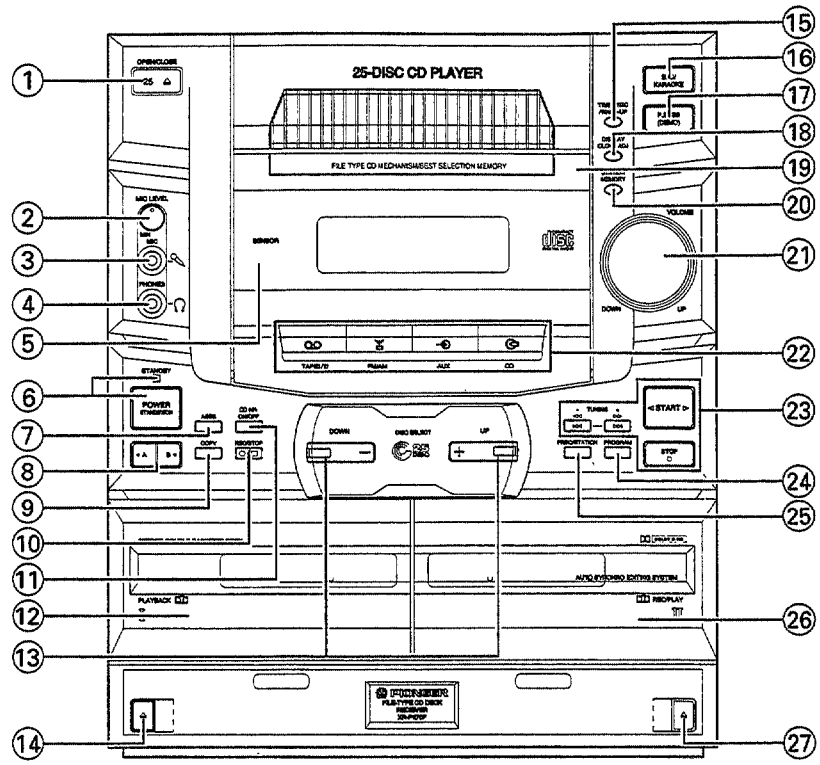


7.3 BLOCK DIAGRAM




R DISPLAY ASSY
F L
REMOTE
8
(IC2002)
GP1U27X
PDG190A
SYSTEM
MPU
(IC2001)
N CENTER SW ASSY
O LEFT SW ASSY
P RIGHT SW ASSY
KEY
FAN
U AMP ASSY
LM3886TF
(IC5501, 5502)
Q MIC & HP ASSY
HEAD
PHONE
NJM4558M
3
1
(IC1005)
10
POWER
AMP
3
1,5
4
+B
–B
± B VOLTAGE
CONT.
R POWER SUPPLY ASSY
FRONT
SP.
REAR
SP.
DC
DET.
Q1014, Q1015
LEVEL
DET.
3
5
DOLBY
FILTER
RTF1217
(F4401, 4402)
C 1/2 AF ASSY

8. PANEL FACILITIES AND SPECIFICATIONS



① 25 OPEN/CLOSE button

② Microphone level (MIC LEVEL)

③ Microphone jack (MIC)

④ Headphones jack (PHONES)

⑤ Remote sensor

⑥ POWER STANDBY/ON switch and STANDBY indicator
This is the switch for electric power.

ON : When set to the ON position, power is supplied and the unit becomes operational.

STANDBY : When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. (The STANDBY indicator lights.)

⑦ ASES button

⑧ BEST (A, B) button

⑨ COPY button

⑩ REC/STOP button (●/■)

⑪ Dolby* NR ON/OFF button
Each time this button is pressed, the Dolby NR system turns on and off.

⑫ TAPE I cassette door

⑬ DISC SELECT UP/DOWN (+, –) buttons

⑭ TAPE I Eject button (⏏)

⑮ TIMER REC/WAKE-UP button

⑯ SFC/KARAOKE button
Each time this button is pressed, the mode changes in the following sequence:

HALL → LIVE → DISCO → MOVIE → KARAOKE → off → HALL

NOTE:
If KARAOKE is selected, the vocal part in songs is muted and only the instrumental accompaniment (backup) is played.

⑰ P.BASS (DEMO) button

⑱ DISPLAY CLOCK ADJ button

⑲ Door panel

⑳ STATION MEMORY button

㉑ VOLUME control

㉒ Function buttons

㉓ Common operation button section

㉔ PROGRAM button

㉕ FREQ/STATION button

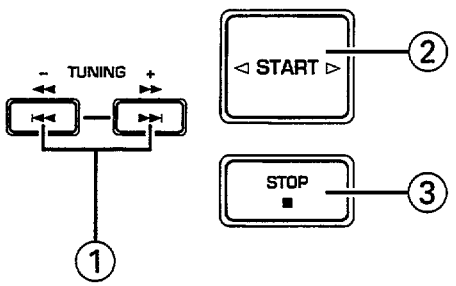
㉖ TAPE II cassette door

㉗ TAPE II Eject button (⏏)

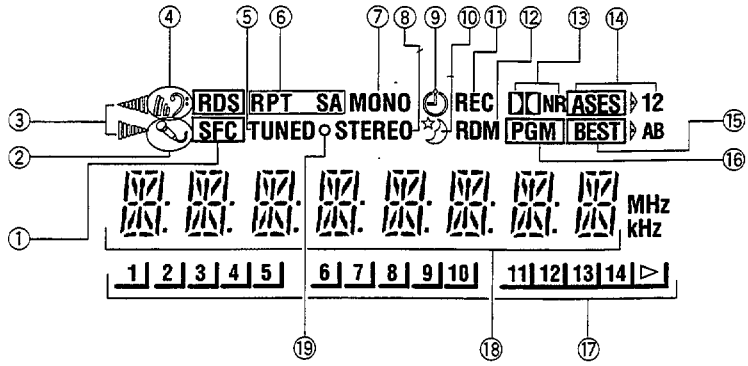
*

- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

Common operation button section



Display



① ▭, ▭ buttons

② START button (◄ ►)

③ STOP button (■)

•Roles of the common operation buttons. (The roles of the buttons vary depending on the input functions as shown below.)

During CD input
START : Play/pause button
STOP : Stop button
▭ : Fast forward/track search button
▭ : Fast reverse/track search button

During cassette deck input
START : Play button/Tape transport direction
STOP : Stop button
▭ : Fast forward button
▭ : Rewind button

During tuner operation
▭ : Frequency Up button
▭ : Frequency Down button

During timer setting
▭ : Increasing timer button
▭ : Decreasing timer button

① **Lights during SFC mode operation.**

② **Lights during KARAOKE mode operation.**

③ **Lights to show tape direction.**
Indicates direction of TAPE II except TAPE functions.

④ **Lights when you press the P.BASS button.**

⑤ **Lights during radio broadcast reception.**

⑥ **RPT : Lights during repeat play.**
S : Lights during SINGLE mode operation.
A : Lights during ALL mode operation.

⑦ **Lights when you press the MONO button.**

⑧ **Lights during FM stereo reception.**

⑨ **Lights when setting the timer.**

⑩ **Lights during sleep timer operation.**

⑪ **Lights during recording and timer recording operation.**

⑫ **Lights when you press the RANDOM button.**

⑬ **Lights when Dolby NR is ON.**

⑭ **Lights when setting up A.S.E.S.**

⑮ **Flashes during Best Selection setting (A or B), and lights during play.**

⑯ **Lights when you press the PGM button.**

⑰ **Displays a CD track number. Playing track number and waiting track numbers are displayed. In program play, lights the programmed tracks. ► lights when programmed tracks are more than 15.**

⑱ **Indicates frequency and major operation status.**

⑲ **Lights when setting the Beat Cut function.**

XR-P670F

■ STEREO FILE-TYPE CD CASSETTE DECK RECEIVER:

Amplifier Section

Continuous Power Output (RMS) ..... 70 W + 70 W
(1 kHz, T.H.D. 10 %, 8 Ω)
Peak Music Power Output ..... 1100 W

FM Tuner Section

Reception frequencies ..... 87.5 MHz to 108 MHz
Antenna input ..... 75 Ω unbalanced

AM Tuner Section

Reception frequencies ..... 531 kHz to 1,602 kHz (9k)
530 kHz to 1,700 kHz (10k)
Antenna ..... Loop antenna (included)

Double Cassette Deck Section

System type ..... 4-track, 2-channel stereo
Heads ..... Recording/playback head x 1
Playback head x 1
Erasing head x 1
Motor ..... DC servo motor x 1
Frequency response
Type I (Normal) tape ..... *35 Hz to 14,000 Hz ±6 dB
(recorded at –20 dB)
SN ratio ..... *56 dB
(peak recording level, audible compensation)
Dolby B type NR on ..... 10 dB compensation at 5 kHz

* Values measured in accordance with EIAJ standards.

■ FILE TYPE CD PLAYER

Type ..... Compact disc audio system
Usable discs ..... Compact audio discs
Channels ..... 2 channels (stereo)
Program steps ..... 32 steps maximum

■ ELECTRICAL REQUIREMENTS, ETC.

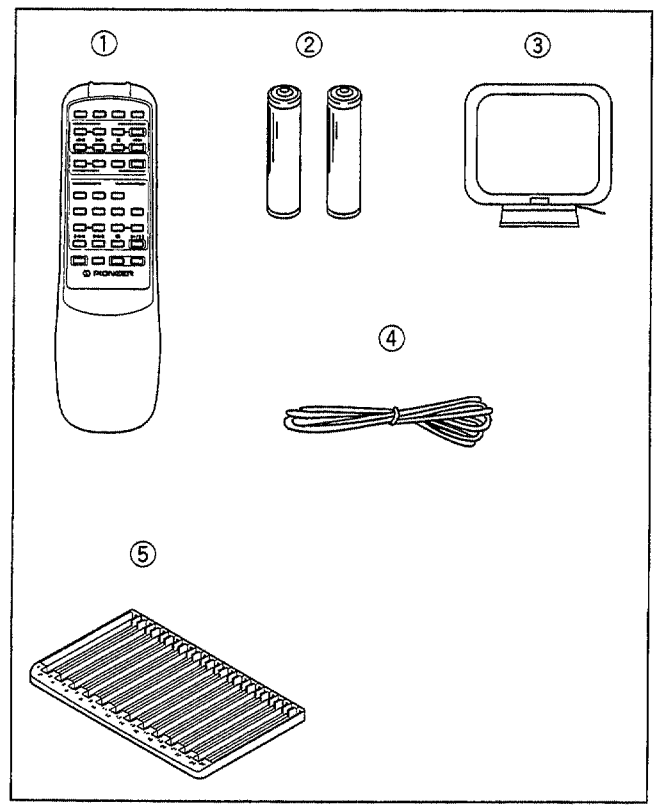
Power Requirements ..... AC 110-127/220-230/240 V
(switchable), 50/60 Hz
Power Consumption ..... 350 W
External dimensions ..... 260 (W) x 310 (H) x 371.5 (D) mm
Weight ..... 9.8 kg

■ ACCESSORIES

Operating Instructions 1
FM antenna 1
AM loop antenna 1
Remote control unit 1
AA/R6P dry cell batteries 2
CD case stand 1

NOTE:

Specifications and design are subject to possible modifications without notice, due to improvements.



① Remote control unit x 1
② AA/R6P dry cell batteries x 2
③ AM loop antenna x 1 (shown assembled)
④ FM antenna x 1
⑤ CD case stand x 1